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APPENDIX 9a
VISUAL RESOURCE

Demand

The visual resource is an inseparable part of nearly all other resources, for it has been estimated that 87% of man's perception is based on sight.^{1/}

National demands favor a natural-appearing environment. Desires for open space and less or smaller scale development stem from how people think things should appear; many people think of National Forest lands as remaining visually unchanged.

Many people choose to live in the mountainous parts of Idaho because of an appreciation for the scenic qualities of the typical landscape. For people living in this area "driving for pleasure" is an important activity--certain views and types of landscapes are particularly important to them. Many others see the National Forests as a place to vacation mainly because of the recreational and scenic qualities of certain landscape types.

Locally, a large proportion of the population has economic ties to the development of the land. While these people accept alterations to the land, most of them also appreciate the aesthetic nature of their surroundings as a place to live and recreate.

Process

The visual resource is inventoried by determining the scenic qualities of the landscape and evaluating people's concern for the visual environment. Distance from the observer's position is also a factor.

The landscape is divided into three Variety Classes determined by evaluating terrain, geologic features, water, vegetative patterns and land use effects. Three Sensitivity Levels rate people's concern for

scenic quality as determined by the seen area from specific viewpoints and facilities, order, and percentage of people using the facility and their concern for the visual experience.

A matrix of these factors is used to classify the visual significance of National Forest lands. It also recommends Visual Quality Objectives which allow the land manager to determine the degree of integrity he can maintain within

The recommended Visual Quality Objectives provide the land managers with a basis for decisions affecting the integrity of the inherent visual character of the landscape.

Suitability

Viewing is an important resource in the Gospel Hump Planning Unit due to the high amounts of recreational use this area receives.

Highway 14, the Salmon River, Square Mountain, Wildhorse Lake and Dixie-Mackay Bar Roads have high visual significance. Viewing significance from the Grangeville/Salmon and Crooked River Roads is moderate. The Santiam and Hungry Ridge Roads have a low visual significance and were not inventoried.

1/ National Forest Landscape Management, Volume 1. Forest Service, U.S.D.A. Agricultural Handbook No. 434, February 1973.

Visual Management System

| <u>Rd.#</u> | <u>Name</u> | <u>Rd.Order</u> | <u>Sens.Level</u> | <u>VQO's *</u> |
|------------------|---------------------------|-----------------|-------------------|---|
| Hwy.14 | So.Fk.Clearwater | 1 | II | fg-PR-West edge of planning unit to Reed Bar fg-M- Reed Bar to Crooked mg-M (no bg viewing) |
| | Mt. Idaho Rd. | 3 | II | bg-MM |
| 1614 | Salmon River | 1 | I | fg-R mg-PR (no bg viewing) |
| 222 | Dixie-Mackay Bar | 1 | II | fg-M-Dixie to Lemon Saddle mg-M-Dixie to Lemon Saddle bg-MM fg-PR-Lemon Saddle to Mackay Bar mg-PR-Lemon Saddle to Mackay Bar bg-M |
| 233 | Wildhorse Lake | 2 | I | fg-R mg-PR bg-PR |
| 254 | Square Mtn. | 2 | I | fg-R mg-R bg-PR |
| 311 | Crooked River | 3 | II | fg-M mg-M bg-MM |
| 221 | Grangeville-Salmon | 3 | II | fg-M mg-M bg-MM |
| 309 | Hungry Ridge | 3 | III | fg-MM mg-MM bg-MM |
| 492 | Santiam | 3 | III | fg-MM mg-MM bg-MM |
| <u>Site Name</u> | | | | |
| | Wildhorse Lake Campground | | I | fg-R mg-R bg-R |

Foreground (fg) - 0 - 1/4 mile
Midground (mg) - 1/4 - 5 miles
Background (bg) - beyond 5 miles

*Visual Quality Objectives - these are found in National Forest Landscape Management, Volume 2 Chapter 1, USDA Ag. Handbook No. 462, 1974.

P - Preservation - Management activities except for very low visual impact recreation facilities are prohibited.

R - Retention - Management activities are not visually evident.

PR - Partial Retention - Management activities remain visually subordinate to the characteristic landscape.

M - Modification - Management activities may visually dominate the characteristic landscape, however, vegetative and land form alteration must borrow from naturally established form.

MM - Maximum Modification - Management activities may dominate the characteristic landscape. However, when viewed as background, the visual characteristics must be those of natural occurrences within the surrounding area or character type.

The visual quality objectives described here apply only to non-wilderness areas. That part of the planning unit which is proposed for wilderness will have a preservation quality objective.

The visual quality objective of areas which are not seen from existing, inventoried travel routes vary due to the variety class rating for the land. (See Appendix)

Gospel-Hump Management Unit Guidance

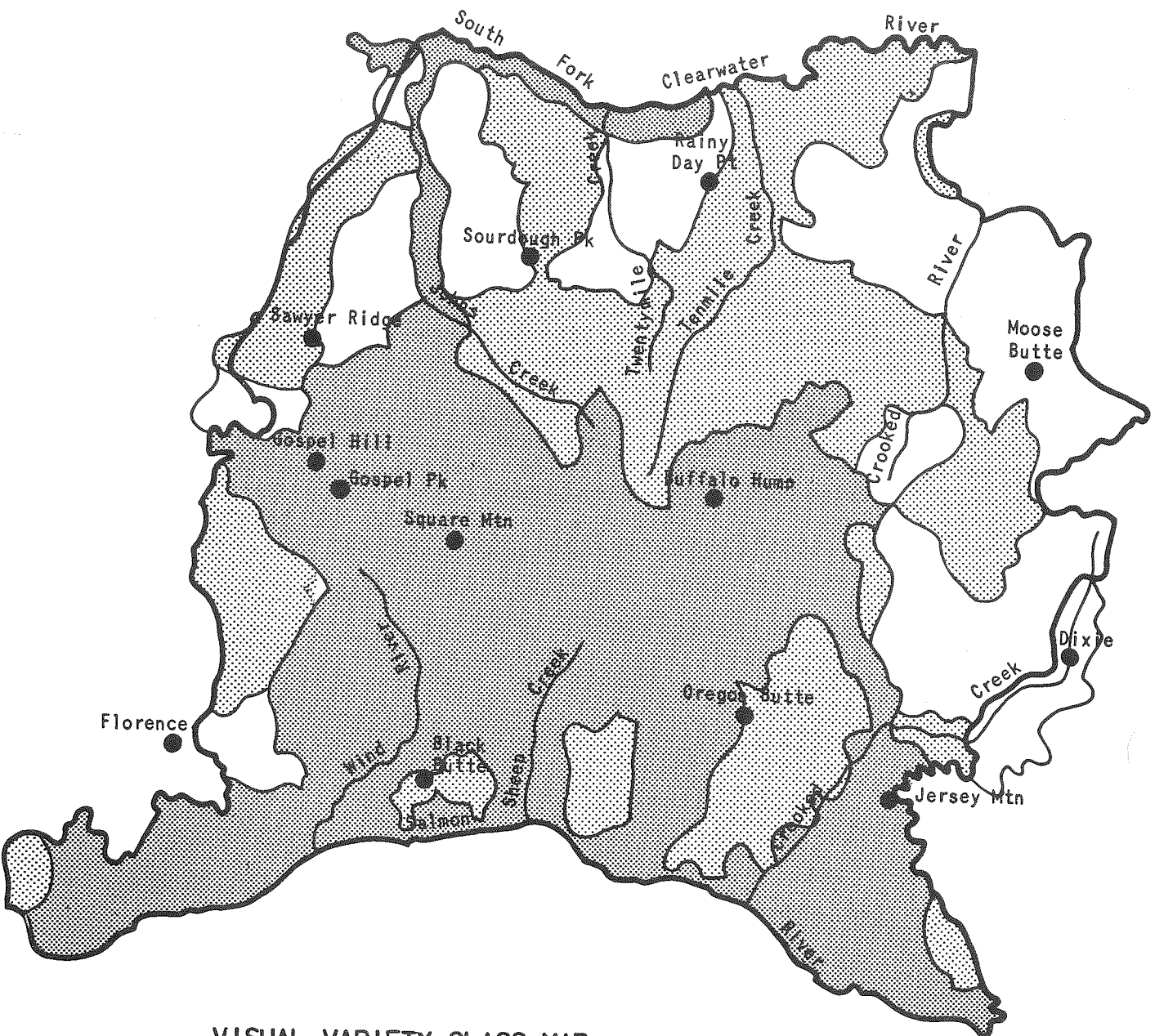
Visual Prescriptions

1. The portion of the breaks of the South Fork which are visible from Hwy.14 should meet a Partial Retention quality objective.
2. The portion of the breaks of the South Fork which are visible from Hwy.14 should meet a Partial Retention quality objective.
3. The portion of the breaks of the South Fork which are visible from Hwy.14 should meet a Modification visual quality objective.
- 4A. The seen area from Hwy. 14 and the area viewed from the Crooked River Road should meet the Modification quality objective.
- 4B. The foreground seen from the road to Orogrande Summit and Wildhorse Lake should meet PR, midground viewing will be Modification, foreground from the Crooked River Rd. will be Modification.
5. Midground viewing from Hwy. 14 should meet Modification.
6. Not seen - MM
7. Not seen - MM
- 8A. Not seen - MM
- 8B. Not seen - MM
9. Not seen - MM
10. The portion of this unit which is located along Blue Ridge is background viewing from the Mt. Idaho Rd. and should meet Maximum Modification.
11. The portion of this unit which is located along Blue Ridge is background viewing from the Mt. Idaho Rd. and should meet Maximum Modification.
12. Not seen - MM
13. Not seen - MM
- 14A. About half of this unit is mid- to background viewing from the Grangeville-Salmon Rd., which would have a Modification quality objective.
- 14B. Parts of this unit are mid- to background viewing from the Square Mtn. Rd. These areas should meet Partial Retention.

15. Not seen - Modification
16. Not seen - Modification
17. Not seen - MM
18. Not seen - Modification
- 19A. Not seen - MM
- 19B. Not seen - MM
20. Not seen - MM
21. Portions of this unit may be viewed from the Crooked River Rd. and would have either a Modification or Maximum Modification quality objective.
22. Foreground from the Wildhorse Lake Road will have a Retention quality objective. Midground will have a Partial Retention quality objective.
23. The foreground seen from the road to Orogrande Summit and Wildhorse Lake should meet Retention, midground viewing will be Partial Retention, foreground from the Crooked River Road will be Modification.
24. Foreground from the Crooked River Rd. should meet Modification.
- 25A. Foreground from the Crooked River Rd. should meet Modification.
- 25B. Not seen - MM
- 25C. Foreground from the Crooked River Rd. should meet Modification.
- 26A. Foreground from the Crooked River Rd. should meet Modification.
- 26B. Not seen - MM
- 26C. Not seen - MM
27. Not seen - MM
28. Foreground from the Crooked River Rd. should meet Modification.
29. The foreground seen from the road to Orogrande Summit and Wildhorse Lake should meet Retention, midground viewing will be Partial Retention, foreground from the Crooked River Rd. will be Modification.
30. Not seen - Partial Retention
31. Foreground from the Wildhorse Lake Road will have a Retention quality objective. Midground will have a Partial Retention quality objective. Foreground, midground and background viewing from the Wildhorse Lake Campground will meet Retention.




- 32. Not seen - Partial Retention
- 33. Not seen - Partial Retention
- 34. Midground viewing from the Square Mtn. Road should meet the Retention quality objective. The rest of the unit should meet Partial Retention.
- 35. Foreground and midground viewing from the Square Mtn. Road will meet Retention. Background from Wildhorse Lake will meet Retention. Areas not seen will meet Partial Retention.
- 36A. The western edge of this unit is foreground viewing from the Grangeville-Salmon Road and should meet the Modification visual quality objective.
- 36B. Not seen - Partial Retention
- 37. The western edge of this unit is foreground viewing from the Grangeville-Salmon Road and should meet the Modification visual quality objective. The rest of the unit should meet Partial Retention.
- 38. The western edge of this unit is foreground viewing from the Grangeville-Salmon Road and should meet the Modification visual quality objective.
- 39A. The western edge of this unit is foreground viewing from the Grangeville-Salmon Road and should meet the Modification visual quality objective. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act.
- 39B. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act. The rest of the unit should meet Partial Retention.
- 40. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act. The rest of the unit should meet Partial Retention.
- 41. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act. The rest of the unit should meet Partial Retention.
- 42. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act. The rest of the unit should meet Partial Retention.

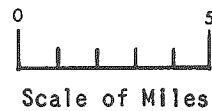
43. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act. The eastern boundary of this unit is the Mackay Bar Road, which has a foreground quality objective of Partial Retention and a mid- and background objective of Modification.
44. The southern edge of the unit is on the breaks of the Salmon River and will be managed according to the Wild & Scenic Rivers Act. The eastern boundary of this unit is the Mackay Bar Road, which has a foreground quality objective of Partial Retention and a mid- and background objective of Modification.



VISUAL VARIETY CLASS MAP

NEZPERCE NATIONAL FOREST
 GOSPEL HUMP STUDY AREA NORTH OF THE SALMON RIVER

-  A Distinctive
-  B Common
-  C Minimal



APPENDIX 10

Recreation Use Estimates

The PAOT capacity estimates are based on ROI inventory for the Gospel-Hump. Vc/ac/yr were adjusted from REU's to approximate the conditions in each analysis unit. The ROI capacity estimates had not been computed for the peripheral area. Similar REU data from within the Gospel-Hump Unit was used as a basis for estimating these.

Current RVD's were simply estimates based on knowledge of use intensity, length of season, etc. Better estimates can probably be obtained by sitting down with persons closely acquainted with the areas such as recreation guards, etc. Some guidance would be needed to assure reliability of the estimates.

1. The first part of the document is a list of the names of the members of the committee.

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Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Capacity | | R.V.D. - Current Est. | |
|---------------|-------|-----------------|---------------|-----------|-----------------------|-----------|
| | | | Dispersed | Developed | Dispersed | Developed |
| 1 | 5779 | I | 6 | - | 40 | - |
| | | II | 14 | - | | |
| | | III | 16 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | | | | | | |
| 2 | 2541 | I | 3 | - | 180 .07 | - |
| | | II | 6 | - | | |
| | | III | 7 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | | | | | | |
| | 5997 | I | 5 | - | 300 .05 | - |
| | | II | 21 | - | | |
| | | III | 13 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | | | | | | |
| 4a | 3929 | I | 2 | - | 4000 | 300 |
| | | II | 17 | - | | |
| | | III | 32 | 25 | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | | | | | | |
| 4b | 1862 | I | 3 | - | 1500 | - |
| | | II | 8 | - | | |
| | | III | 3 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | | | | | | |

Recreation Use

| Analysis Unit | Acres | Reference Type | PAOT Capacity Dispersed | Capacity Developed | R.V.D. - Current Es Dispersed | Current Es Developed |
|---------------|--------|----------------|-------------------------|--------------------|--|--|
| .35 | | I | 15 | - | 600 | - |
| .90 | | II | 39 | - | | |
| 5 2.00 | 15,987 | III | 87 | - | | |
| - | | IV | - | - | | |
| - | | V | - | - | | |
| .35 | | I | 3 | - | 100 | - |
| .90 | | II | 7 | - | | |
| 6 2.00 | 2861 | III | 16 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| .60 | | I | 8 | - | 100 | - |
| 1.50 | | II | 19 | - | | |
| 7 1.00 | 1717 | III | 13 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| .50 | | I | 18 | - | 1000 Counted Houses in Hunting Camps | Adding development Areas will also dispersed by 10%. |
| 1.75 | | II | 62 | - | | |
| 8 1.00 | 15,877 | III | 35 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| .20 | | I | 2 | - | 150 | - |
| .50 | | II | 4 | - | | |
| 8 1.00 | 2982 | III | 15 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

Recreation Use

| Analysis Unit | Acres | Reference Type | PAOT Dispersed | Capacity Developed | R.V.D. - Current Est. Dispersed | Current Est. Developed |
|---------------|-------|----------------|----------------|--------------------|---|------------------------|
| 9 | 7974 | I | 13 | - | 100 | - |
| | | II | 26 | - | | |
| | | III | 9 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 10 | 2611 | I | 4 | - | 30 | - |
| | | II | 9 | - | | |
| | | III | 14 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| X | 8723 | I | 12 | - | 100 | - |
| | | II | 27 | - | | |
| | | III | 24 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 12 | 4352 | I | 6 | - | INCREASE BY EXPECTING ESTIMATE 200 KUP 100 | - |
| | | II | 14 | - | | |
| | | III | 12 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| X 13 | 2413 | I | 2 | - | 50 | - |
| | | II | 7 | - | | |
| | | III | 13 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Dispersed | Capacity Developed | R.V.D. - Current Es Dispersed | Current Es Developed |
|---------------|--------|-----------------|----------------|--------------------|-------------------------------|----------------------|
| 14a | 11424 | I | 9 | - | 300 | - |
| | | II | 31 | - | | |
| | | III | 62 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 14b | 23,078 | I | 32 | - | 500 | - |
| | | II | 76 | - | | |
| | | III | 57 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 15 | 6592 | I | 5 | - | 30 | - |
| | | II | 13 | - | | |
| | | III | 11 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 16 | 973 | I | 1 | - | 10 | - |
| | | II | 2 | - | | |
| | | III | 2 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 17 | 8262 | I | 7 | - | 150 | - |
| | | II | 16 | - | | |
| | | III | 17 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Capacity | | R.V.D. - Current Est. | |
|---------------------|-------|-----------------|---------------|-----------|-----------------------|-----------|
| | | | Dispersed | Developed | Dispersed | Developed |
| 18 2.80 9491 | .20 | I | 5 | - | 200 | - |
| | .50 | II | 13 | - | | |
| | | III | 73 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 19a 1.80 2214 | .20 | I | 1 | - | 10 | - |
| | .50 | II | 3 | - | | |
| | | III | 11 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 19b 1.80 2349 | .20 | I | 1 | - | 10 | - |
| | .50 | II | 3 | - | | |
| | | III | 11 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 20 1.80 3078 | .20 | I | 2 | - | 20 | - |
| | .50 | II | 4 | - | | |
| | | III | 15 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 21 1.60 3110 | .20 | I | 2 | - | 50 | - |
| | .60 | II | 5 | - | | |
| | | III | 14 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

10-G

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Dispersed | Capacity Developed | R.V.D. - Current Es. Dispersed | Current Es. Developed |
|---------------|-----------------------------------|-----------------|----------------|--------------------|---|-----------------------|
| 22 | 1.30 | 2125 | I 2 | - | 200 | - |
| | | | II 4 | - | | |
| | | | III 8 | - | | |
| | | | IV - | - | | |
| | | | V - | - | | |
| 23 | 1.00 | 6803 | I 4 | - | 400 | - |
| | | | II 9 | - | | |
| | | | III 19 | - | | |
| | | | IV - | - | | |
| | | | V - | - | | |
| 24 | .05 .10 .90 | 1587 | I 0 | - | 50 | - |
| | | | II 1 | - | | |
| | | | III 4 | - | | |
| | | | IV - | - | | |
| | | | V - | - | | |
| 25 | .50 1.00 1.00 .55 .84 | 17,975 | I 24 | - | A 200 B 100 500 C 200 | |
| | | | II 49 | - | | |
| | | | III 49 | 25 | | |
| | | | IV 27 | - | | |
| | | | V 41 | - | | |
| 26a | .20 .50 .30 | 4364 | I 2 | - | 100 | |
| | | | II 6 | - | | |
| | | | III 4 | - | | |
| | | | IV - | - | | |
| | | | V - | - | | |

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Capacity Dispersed | Capacity Developed | R.V.D. - Current Est. | |
|---------------|--------|-----------------|-------------------------|--------------------|-----------------------|---|
| 26 b | 1920 | I | 2 | - | 100 | - |
| | | II | 6 | - | | |
| | | III | 2 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 26 c | 211 | I | 0 | - | 10 | - |
| | | II | 0 | - | | |
| | | III | 0 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 27 | 5293 | I | 6 | - | 150 | - |
| | | II | 13 | - | | |
| | | III | 41 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 28 | 2662 | I | 4 | - | 50 | - |
| | | II | 7 | - | | |
| | | III | 9 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 29 | 16,077 | I | 23 | - | 250 | - |
| | | II | 51 | - | | |
| | | III | 84 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Capacity Dispersed | PAOT Capacity Developed | R.V.D. - Current Es. Dispersed | R.V.D. - Current Es. Developed |
|---------------|--------|-----------------|-------------------------|-------------------------|--------------------------------|--------------------------------|
| 30 | 5562 | I | 8 | - | 300 | - |
| | | II | 21 | - | | |
| | | III | 26 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 31 | 2501 | I | 3 | - | 3000 | 1600 |
| | | II | 10 | - | | |
| | | III | 55 | 40 | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | 14,771 | I | 12 | - | 2500 | - |
| | | II | 40 | - | | |
| | | III | 142 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 33 | 2042 | I | 4 | - | 400 | - |
| | | II | 10 | - | | |
| | | III | 5 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 34 | 26,138 | I | 29 | - | 600 | - |
| | | II | 64 | - | | |
| | | III | 4 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Capacity | | RVD - Current Est. | |
|---------------|-------|-----------------|---------------|-----------|--------------------|-----------|
| | | | Dispersed | Developed | Dispersed | Developed |
| 35 | 1.50 | 8742 | I | 10 | 2200 | - |
| | | | II | 19 | | |
| | | | III | 36 | | |
| | | | IV | - | | |
| | | | V | - | | |
| 36a | 1.50 | 11,712 | I | 19 | 400 | - |
| | | | II | 48 | | |
| | | | III | 48 | | |
| | | | IV | - | | |
| | | | V | - | | |
| 36b | 1.20 | 17,594 | I | 19 | 2500 | - |
| | | | II | 53 | | |
| | | | III | 58 | | |
| | | | IV | - | | |
| | | | V | - | | |
| 37 | 2.30 | 4397 | I | 6 | 600 | 1500 |
| | | | II | 14 | | |
| | | | III | 28 | | |
| | | | IV | - | | |
| | | | V | - | | |
| 38 | .70 | 6163 | I | 14 | 1500 | - |
| | | | II | 25 | | |
| | | | III | 12 | | |
| | | | IV | - | | |
| | | | V | - | | |
| 10-10 | | | | | | |

Recreation Use

| Analysis Unit | Acres | Preference Type | PAOT Dispersed | Capacity Developed | R.V.D. - Current E Dispersed | Current E Development |
|---------------|--------|-----------------|----------------|--------------------|------------------------------|-----------------------|
| 39a | 27,193 | I | 37 | - | 3000 | - |
| | | II | 104 | - | | |
| | | III | 150 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 39b | 3,802 | I | 2 | - | 200 | - |
| | | II | 52 | - | | |
| | | III | 1 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 40 | 6,278 | I | 5 | - | 600 | - |
| | | II | 14 | - | | |
| | | III | 12 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 41 | 8,563 | I | 5 | - | 200 | - |
| | | II | 12 | - | | |
| | | III | 1 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 42 | 19,226 | I | 10 | - | 2000 | - |
| | | II | 26 | - | | |
| | | III | 2 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |

Recreation Use

| Analysis Unit | Acres | Reference Type | PAOT Dispersed | Capacity Developed | R.V.D. - Current Est. | |
|-----------------------------|--------|----------------|----------------|--------------------|--------------------------|-----------|
| | | | | | Dispersed | Developed |
| 43a 30 1.00 43 .40 | 22,016 | I | 18 | - | 2500 | - |
| | | II | 60 | - | | |
| | | III | 24 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 43b .50 1.50 .50 | 666 | I | 1 | - | 50 | 1 |
| | | II | 3 | - | | |
| | | III | 1 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 43c .50 1.50 .50 | 192 | I | 0 | - | 10 | - |
| | | II | 1 | - | | |
| | | III | 0 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 44 .30 1.00 .50 | 15,693 | I | 13 | - | 4000 | - |
| | | II | 43 | - | | |
| | | III | 21 | - | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| 45 1.40 3.50 1.00 | 7,859 | I | 30 | - | 2000 A 6000 4000 B | 1000 |
| | | II | 75 | - | | |
| | | III | 22 | 20 | | |
| | | IV | - | - | | |
| | | V | - | - | | |
| | | | | Total | 41,850 43,140 | 4400 |

10-12

APPENDIX 11

TRANSPORTATION

The Gospel-Hump planning unit is bounded on the west by the old timber and mining roads, namely the old Florence Road from Rocky Bluff Campground southerly to Little Slate Saddle and on down Van Ridge, and to the north from Rocky Bluff via the Grangeville-Salmon Road #221 to old Adams R.S., thence via the Hungry Ridge road to the South Fork Clearwater River and State Highway #14.

On the north, the entire boundary is State Highway #14 adjacent to the South Fork Clearwater River. There are three significant roads that incise from the north, the new Blue Ridge pioneer road extending from Reeds Bar southwesterly for about 4½ miles, the Buckhorn Creek and Santiam Creek roads which meander to a junction about seven miles south-east, thence in a southwesterly direction to Sourdough Lookout some 15-18 miles. From near the northeast corner of the unit, the Crooked River-Orogrande Road enters and traverses up the West Fork of Crooked River, past Orogrande Summit Campground to a point on the ridge northwest of Wildhorse Lake. From this point, the more gentle rolling ground and somewhat open flat ridges provide easy access to a large area. This is a main access route and jumping off point for miners, hikers, hunters, motorbikers, and others, to nearly a dozen high mountain lakes.

Other old jeep and mining roads in the Buffalo Hump area are shown on the map as trails, although it is still possible for four-wheel drive vehicles to go southwesterly from Orogrande Summit about three miles to near the Calendar Mine. From that point the jeep trail becomes steeper and rockier up to the junction near the south end of Hump Lake. From this junction there is a good jeep trail southwest for about three miles to near Squaw Meadow. Also from the junction near the south end of Hump Lake, the jeep trail traverses southerly approximately five miles past the Concord Mine and airstrip, past the St. Louis Mine, to a point at the head of Jumbo Canyon near the Jumbo Mine. This jeep trail makes another nine high lakes accessible to the hiker, motorbiker or horseback rider on a one-day or weekend roundtrip basis. All of the roads within the study unit are of a low standard, unsurfaced, jeep trail type with some steep pitches. Most of the entire transportation system in the unit was constructed on a need basis, i.e., the trails and roads were built by miners, fire control people, or grazing permittees to satisfy a utilization need. The hunters, hikers, and others use these facilities as a side benefit.

The balance of the east boundary is a continuance of the Crooked River-Orogrande road to Penman Hill, then the Penman Hill-Lemmon Creek Road to Jersey Mtn. and on down to Mackay Bar. Access to the roadless area on the north side of the main Salmon River occurs on the entire perimeter via approximately 900 miles of trails and 75 miles of roads that jut into the heart of the area.

The most important access on the west side of this area is via the Adams-Square Mtn. Road which is on the main ridge between the Salmon and South Fork Clearwater Rivers. This Square Mtn. road is 14.3 miles long. Part of this road receives annual maintenance and other parts receive intermittent maintenance.

From Square Mtn. road via the Beargrass Ridge, approximately 10 miles of trail separate this road from the road incising via Crooked River to the road end near Squaw Meadow. This route is the geographic and drainage separation which virtually bisects the part of the unit lying north of the Salmon River.

South of the main Salmon River, the eastern boundary is the South Fork of Salmon River up to Rattlesnake Creek, thence up Rattlesnake Creek to the Pilot Peak Knob Lookout road which comprises the southwest corner of the planning unit.

The southern perimeter is mostly a combination of roads that meander northwesterly through Warren, War Eagle Mtn., Marshall Mtn., down to meet the end of the double lane county road adjacent to the Salmon River near the Wind River pack bridge. The balance of the southern boundary follows the county road downstream about 15 miles to meet the boundary on the north side of the Salmon River at Van Ridge. Within the part of the unit that lies south of the Salmon River, nearly 25 miles of road and 75 miles of trail protrude into and cross the area.

Engineering

1. Number of miles of existing roads by arterial, collector & local

- a. Arterial - None
- b. Collector - 3.0 miles in Unit 26A for Crooked River Road
- c. Local - Mileage measured with a map measuring wheel so may be short.
There are no doubt roads in use for mining and others following trails in some areas that don't show up on the map.

2. Number of miles of existing trails

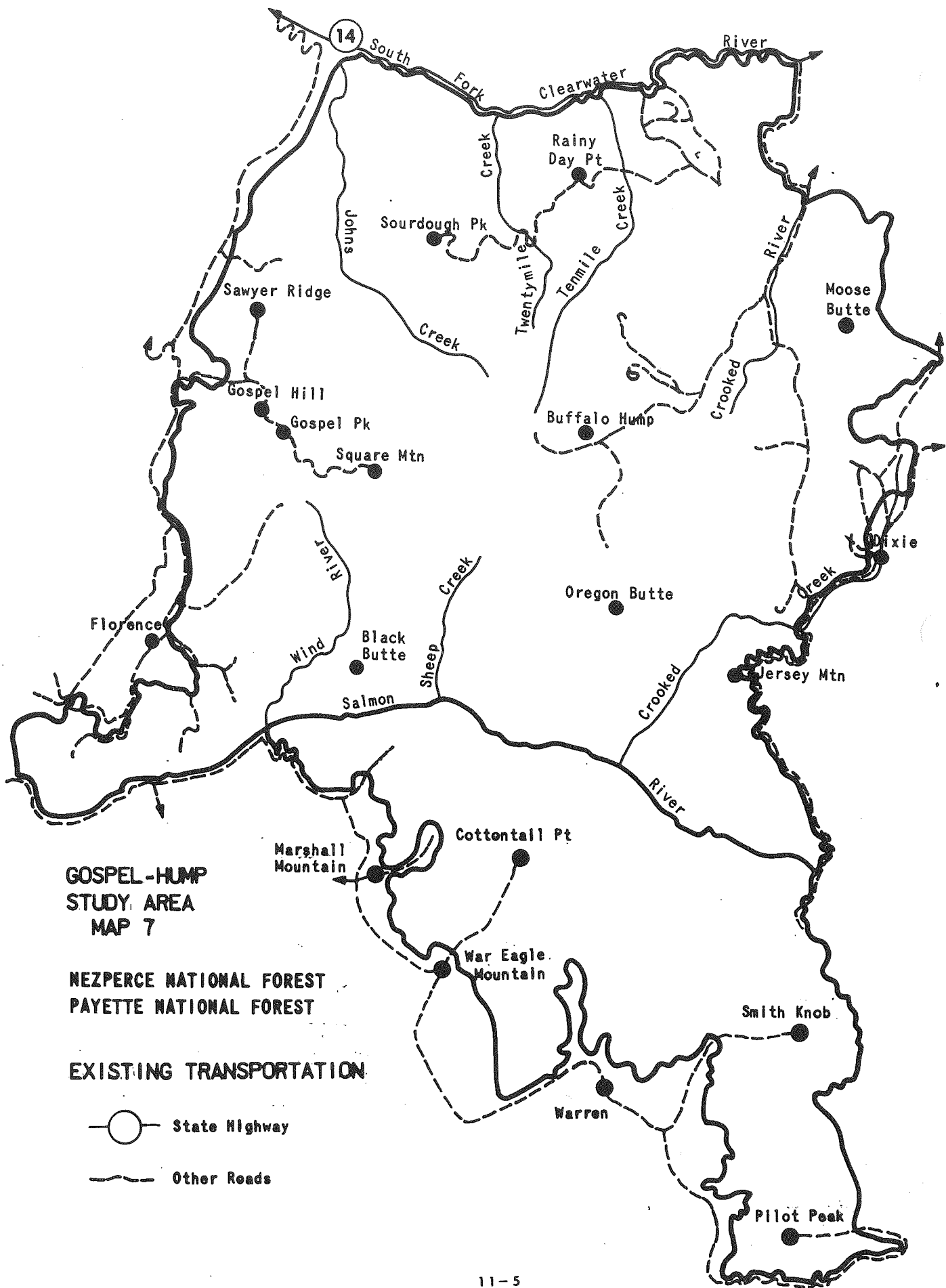
- a. Mileage measured with map measuring wheel. Only trails shown on map were measured. There may be trails shown that are no longer used and there may be trails used by hunters and permittees which are not shown.

3. List of facilities

- a. Some trail bridges are not listed which have been washed out with no present plans for replacement. Could be a few trail bridges on the Elk City District which are not shown.

| <u>Unit No.</u> | <u>No. Miles of Existing Road</u> | | | <u>No. Miles of Existing Trails</u> | <u>List of Facilities</u> |
|-----------------|-----------------------------------|----------|----------|-------------------------------------|--|
| | <u>A</u> | <u>C</u> | <u>L</u> | | |
| 1 | 0 | 0 | 0 | 1.0 | 1 Tram |
| 2 | 1.5 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 4.0 | 6.0 | 0 |
| 4A | 0 | 0 | 0 | 1.0 | Campground |
| 4B | 0 | 0 | 3.0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 18.0 | 0 (Old Crooked R. Timber Sale?) |
| 6 | 0 | 0 | .5 | 1.5 | 0 |
| 7 | 0 | 0 | 3.0 | 0 | 0 |
| 8A | 0 | 0 | 10.0 | 18.0 | 0 |
| 8B | 0 | 0 | 0 | 3.0 | 0 |
| 9 | 0 | 0 | 0 | 6.0 | Sourdough L.O. |
| 10 | 0 | 0 | 0 | 3.0 | 0 |
| 11 | 0 | 0 | 0 | 16.0 | 0 |
| 12 | 0 | 0 | 0 | 1.5 | 0 |
| 13 | 0 | 0 | 0 | 6.0 | 3.0 Mi. Survey & Design Honker Timber Sale |
| 14A | 0 | 0 | 5.0 | 15.0 | 20.0 Mi. Survey & Design Honker Timber Sale |
| 14B | 0 | 0 | 4.5 | 34.0 | 1 Trail Bridge Sawyer Ridge L.O. |
| 15 | 0 | 0 | 0 | 6.0 | 0 |
| 16 | 0 | 0 | 0 | 0 | 0 |
| 17 | 0 | 0 | 1.5 | 13.0 | 0 |
| 18 | 0 | 0 | 0 | 18.0 | 0 |

| | | | | | |
|-----|---|---|-----|------|---|
| 19A | 0 | 0 | 0 | 0 | 0 |
| 19B | 0 | 0 | 0 | 3.0 | 0 |
| 20 | 0 | 0 | 0 | 3.0 | 0 |
| 21 | 0 | 0 | 0 | 1.5 | 0 |
| 22 | 0 | 0 | 5.0 | 0 | Orogrande Summit C.G. |
| 23 | 0 | 0 | 5.0 | 3.0 | 0 |
| 24 | 0 | 0 | 0 | 1.5 | 0 |
| 25 | 0 | 0 | 0.5 | 15.0 | 0 |
| 26A | 0 | 3 | 0 | 5.0 | 0 |
| 26B | 0 | 0 | 0 | 3.0 | 0 |
| 26C | 0 | 0 | 0 | 0 | 0 |
| 27 | 0 | 0 | 0 | 8.0 | 0 |
| 28 | 0 | 0 | 0 | 1.5 | 0 |
| 29 | 0 | 0 | 0 | 18.0 | 0 |
| 30 | 0 | 0 | 3.0 | 15.0 | 0 |
| 31 | 0 | 0 | 0.3 | 6.0 | Wildhorse C.G. |
| 32 | 0 | 0 | 6.0 | 12.0 | Oregon Butte L.O. |
| 33 | 0 | 0 | 0 | 1.5 | 0 |
| 34 | 0 | 0 | 7.5 | 20.0 | 0 |
| 35 | 0 | 0 | 4.0 | 15.0 | Square Mtn. L.O. |
| 36A | 0 | 0 | 1.5 | 12.0 | 0 |
| 36B | 0 | 0 | 7.5 | 15.0 | Moore's W.C. |
| 37 | 0 | 0 | 1.5 | 6.0 | 2 Trail Bridges |
| 38 | 0 | 0 | 5.0 | 7.5 | Florence townsite (Florence Basin Timber Sale) |
| 39A | 0 | 0 | 4.0 | 30.0 | 1 Trail Bridge |
| 39B | 0 | 0 | 0 | 6.0 | Robbins Timber Sale |
| 40 | 0 | 0 | 0 | 12.0 | 0 |
| 41 | 0 | 0 | 0 | 12.0 | 0 |
| 42 | 0 | 0 | 0 | 7.5 | 0 |
| 43A | 0 | 0 | 0 | 36.0 | 2 Trail Bridges |
| 43B | 0 | 0 | 0 | 0 | 0 |
| 43C | 0 | 0 | 0 | 0 | 0 |
| 44 | 0 | 0 | 0 | 7.0 | 0 |
| 45 | 0 | 0 | 15 | 15.0 | Dixie Townsite |
| | | | | | Dixie W.C. |
| | | | | | Airfield |
| | | | | | Halfway C.G. |
| | | | | | 2 Trail Bridges |



APPENDIX 12

WILDERNESS EVALUATION

I. Introduction

The evaluation of wilderness characteristics of any roadless or undeveloped area is a difficult undertaking, because by nature wilderness values are more an emotional measure than technical. The Wilderness Act of 1964 defines wilderness as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."

While the Act provides general guidelines for what wilderness is, there are no firm criteria for measuring wilderness values. So in introducing this evaluation, it must be pointed out that any evaluation must be subjective to some degree and philosophic differences are unavoidable. An attempt has been made to make the evaluation process visible, and to that end some major departures from previous roadless unit analyses were made.

The objective of this evaluation is to document wilderness values within the contiguous roadless area for consideration with other resource values. The area evaluated includes roadless areas on both sides of the Salmon River, but as directed by the Chief of the Forest Service, did not include those lands already studied in the Idaho and Salmon River Breaks Primitive Area reviews. (1.)(Appeal Decision)

As part of the process, alternative boundary locations were described and the effect of adding areas was discussed. The five alternatives ranged in size from 159,400 acres to 525,200 acres. Tradeoffs or "resource opportunities foregone" because of wilderness classification are discussed only in general terms. The primary concern herein was strictly desirability for wilderness. Those trade-offs will be fully developed in the environmental impact statement.

Area Description

The area referred to as the Gospel-Hump is located in Idaho County and Valley County in north-central Idaho. The area is split by the Salmon River, and administrative responsibilities are held by two National Forests -- the Nezperce and Payette. A total of 540,700 acres are contained in the contiguous roadless area. A vicinity map is displayed as Figure 1.

Closely associated local communities include Grangeville, Riggins, and McCall, all in Idaho. Major population centers and respective vehicle travel times to the unit are: Lewiston, Idaho, 2.5 hours; Spokane, Washington, 5 hours; Boise, Idaho, 5 hours; and Missoula, Montana, 5 hours. It is estimated that a 5-hour travel time radius would contain in excess of 450,000 people.

Not only is the area large in acreage, but it also contains a host of widely varied ecosystems and habitat types. Striking features are the steep slopes and tumultuous waters of the Salmon River, the rugged and beautiful high country surrounding Gospel Mountain and the Buffalo Hump, and the vast areas of undisturbed timber stands.

Habitat is provided for a large number and variety of animals also. Large mammals within the area include elk, moose, whitetail deer, mule deer, black bear, bighorn sheep, mountain goats, and cougar. A host of smaller animal and bird species is also present. Many of the lakes and streams contain resident fish populations, primarily brook, rainbow, and cutthroat trout. Additionally, anadromous chinook salmon and steelhead trout ascend from the Pacific Ocean to spawn in some streams of the unit.

The area is also contiguous to the Porphyry Roadless Area on the Payette National Forest. The Porphyry area has received wilderness study in conjunction with the Idaho Primitive Area. The Forest Service recommended Wilderness classification of the unit along with the Idaho Primitive Area. However, the Ford administration proposal deleted the area along with the larger Chamberlain Basin. Depending on the final legislation, there is a possibility the unit will be classified. While Porphyry was not included in this evaluation, its relationship should receive consideration in selecting an area for wilderness study.

Relationship to RARE

In the recent inventory of roadless areas conducted by the Forest Service (Roadless Area Review and Evaluation), the Gospel-Hump was displayed as RARE #1-921. The boundaries herein displayed differ significantly, however, from those shown in RARE II. The RARE II unit included an area east of the South Fork Salmon River known as Porphyry Creek, and an additional planning unit on the Nezperce National Forest known as Jersey-Jack. Evaluation of Porphyry Creek was not done because it received wilderness study with the Idaho Primitive Area, and will be recommended for additional study by the Warren Land Management Plan and Environmental Statement. Jersey-Jack was contiguous only through Porphyry, hence was not included.

Also, areas which had completed land management plans were not displayed in RARE II, but the Gospel-Hump Roadless Area being considered in this plan includes roadless areas in Kelly-Bullion, Little Slate, Mill Creek, and Rainy Day Planning Units. Each of those units has a completed land management plan, but the roadless area allocations are being reconsidered as explained in the next section.

Appeals

The present planning effort resulted from appeals of the Rainy Day and Mill Creek land use plans and their environmental impact statements. Appellants were the Sierra Club and similarly oriented organizations.

The basic contention of the appellants was that the large contiguous roadless area was not studied for its wilderness potential as an entity. Instead, a piecemeal study of wilderness potential was being made in each of the separate planning units that comprise the Gospel-Hump Roadless Area.

The appellants were subsequently upheld, and the two plans remanded. The Chief gave direction that:

- (1) The Regional Forester of the Northern Region, on consultation with the Regional Forester in the Intermountain Region, will evaluate as soon as practicable, the wilderness potential for the contiguous roadless areas of which the Rainy Day and Mill Creek Planning Units comprise a part. This area will include appropriate roadless areas on both sides of the Salmon River, but not including those lands already studied in the Idaho and Salmon River Breaks Primitive Area reviews. This planning effort will evaluate the interrelationship of the contiguous roadless areas to existing and potential wilderness, wilderness study areas, and nonselected roadless areas from local, regional and national viewpoints.
- (2) The objective for this evaluation will be to determine how much of the total contiguous roadless area, if any, appears to possess an exemplary potential for wilderness study area designation considering other resource values present. If any potential wilderness study area is identified and proposed, it will be considered by the Chief, Forest Service. At the discretion of the Regional Forester, this evaluation may be made through an appropriate plan and environmental statement in the context of either a forest level plan, a revised existing unit plan, or a newly defined planning unit. NEPA procedures pursuant to FSM 8400 will be followed.

To comply with this direction, consideration will be given to the entire contiguous roadless area as a whole without regard to the boundaries of individual planning units or inventoried roadless areas.

II. Study Methods

In order to evaluate the unit for wilderness quality, two basic procedures were followed to obtain data for the analysis phase.

A. Recreation Opportunity Inventory (2)

1. Mapping Units - This system was not designed to measure wilderness values, but many of the concepts and inventory data are directly applicable. The advantage of using this procedure was that it provided a systematic framework for evaluation of wilderness characteristics.

The basic mapping unit of the Recreation Opportunity Inventory is termed a "Recreation Experience Unit." This unit is defined as the "discrete portion of the Forest land base to which people relate while engaging in Forest outdoor recreation." Generally, an REU conforms closely to a small watershed drainage basin. Delineation of the REU's was useful in this study because they impart a sense of peace upon the viewer.

While much of the lure of wilderness is extensive reaches of undeveloped country, it is not possible to objectively speak to this point. For many people, a 5,000 acre unit would seem large enough to gain a feeling of solitude, while for others, ten times that amount might be inadequate. Solitude is a personal thing with each person.

Except for the feeling that size of the area imparts, outdoor experiences are contained within units such as the REU. A person on a ridge might experience two or more REU's simultaneously, but there still is validity to expressing relative values in terms of the REU. A graphic example of the REU is shown in Figure 2, while the REU experience is depicted in Figure 3.

An additional value of evaluating an area in terms of the recreation experience unit is that watershed boundaries also are useful for alternative wilderness study boundaries. Boundaries of study areas formed by legal subdivisions, contours, and other delineations are usually not identifiable on the ground or are more likely to include incomplete features.

B. Products - The major products that resulted from the inventory process were three map overlays. As can be seen from the appraisal criteria, distinct elements of the visual field were measured, and some of those measurements were used in the later evaluation of wilderness characteristics.

Map 2, entitled "Discord Elements Inventory" displays areas which have been altered by man. "Discord elements" refer to the persistent, readily evident to the senses, forms of contamination that may be characteristic of an REU."(2) Specific elements considered as discordant include dredge mining, road cut and fill sections, timber harvest units, mining, or earth disturbing activity. The Discord Elements Inventory is

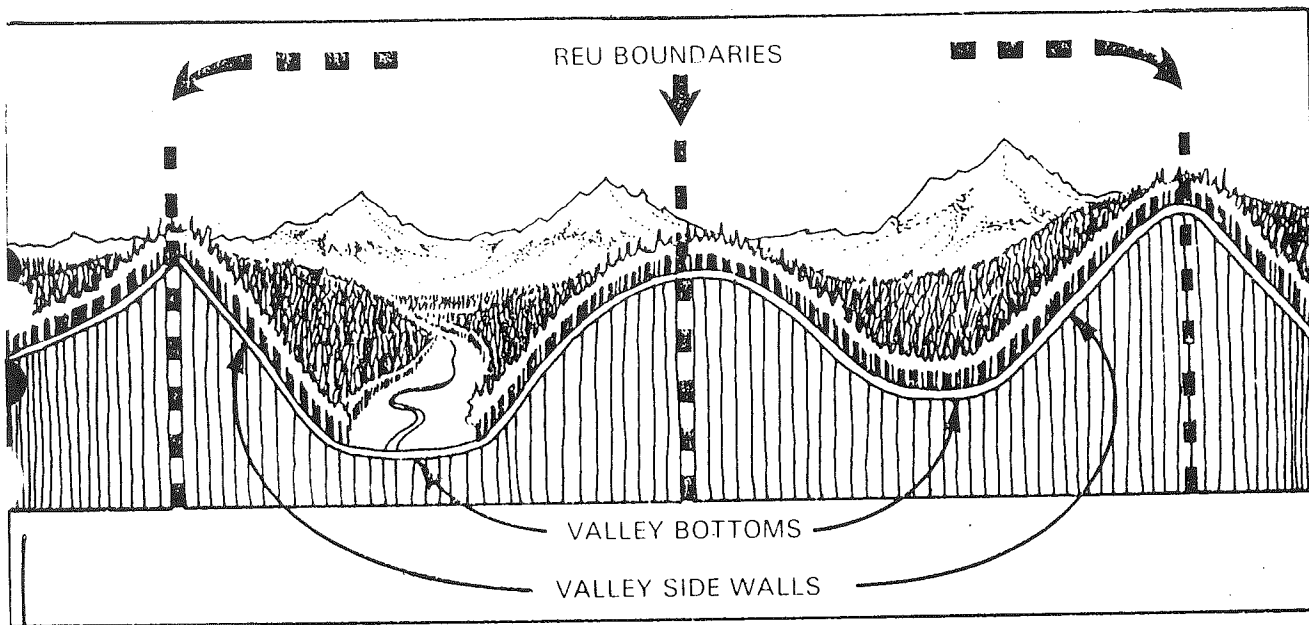


FIGURE 2

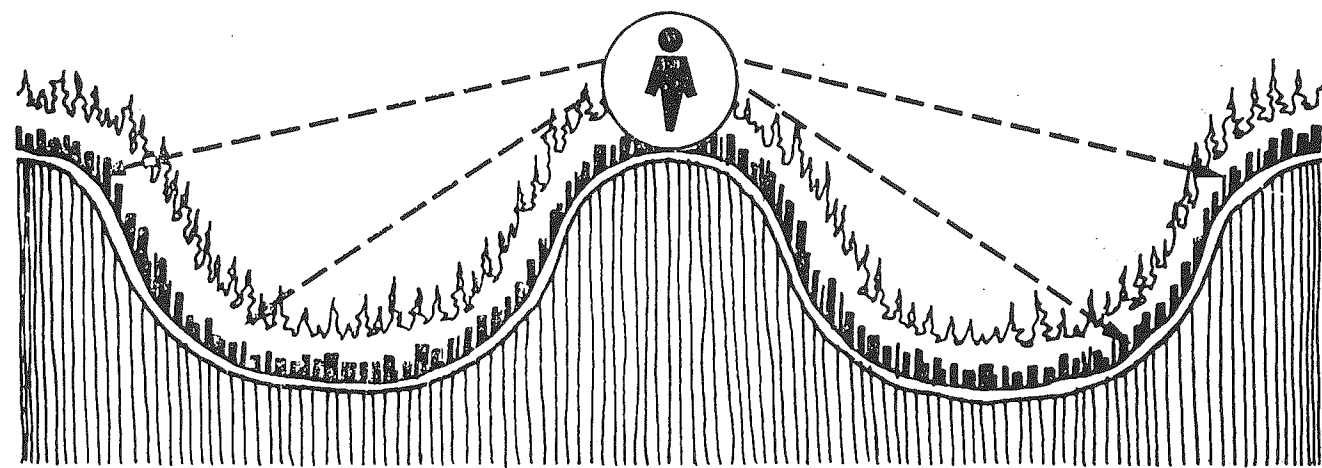
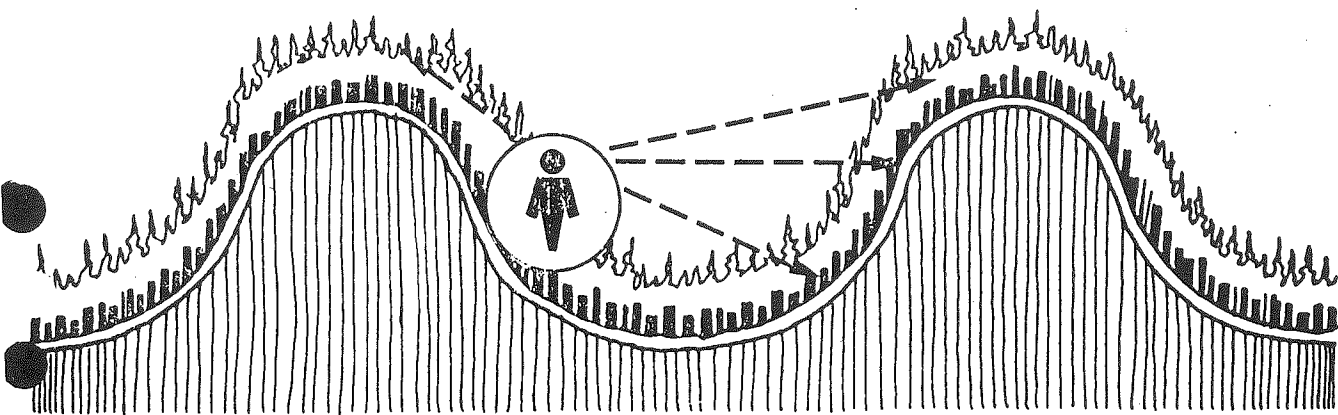
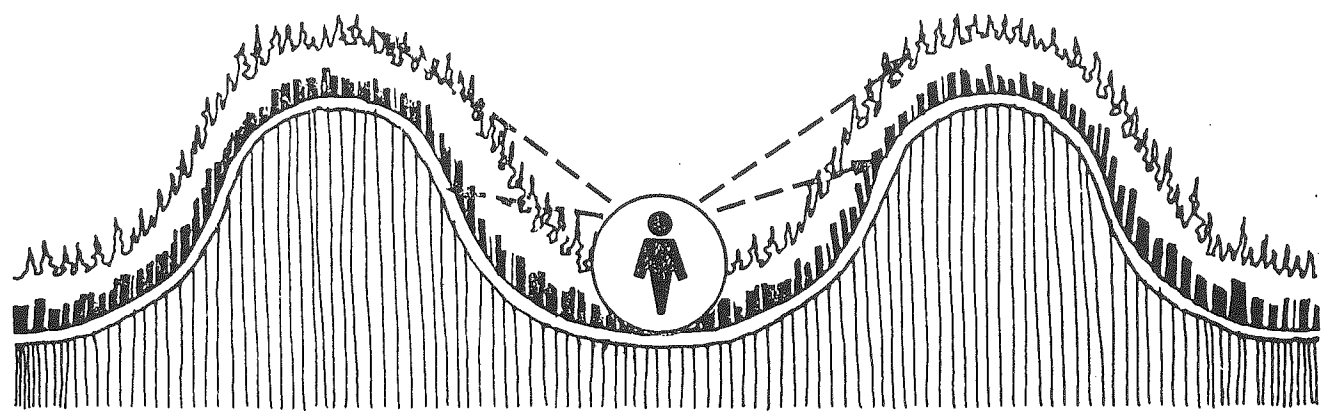


FIGURE 3

closely associated with the natural conditions as spoken to in the Wilderness Act. Obviously, all activities which might have affected the natural condition are not inventoried as discord elements. Fire control, game management, and other activities have affected the natural condition, but the effect is not visible to the average person. Only visible activities are recorded. The inventory map displays the degree to which the REU has been affected.

Map 3, entitled "Remoteness and Accessibility," documents the type of travel features that are contained within a unit. Travel features include two-wheel drive roads and four-wheel drive roads. Trails are not shown on the map because of the small scale.

The following three pages display the maps which resulted from the inventories.

FIGURE 4

THE MOUNTAINS
Extensive Appraisal Criteria

VISUAL RESOURCE EVALUATION CRITERIA —

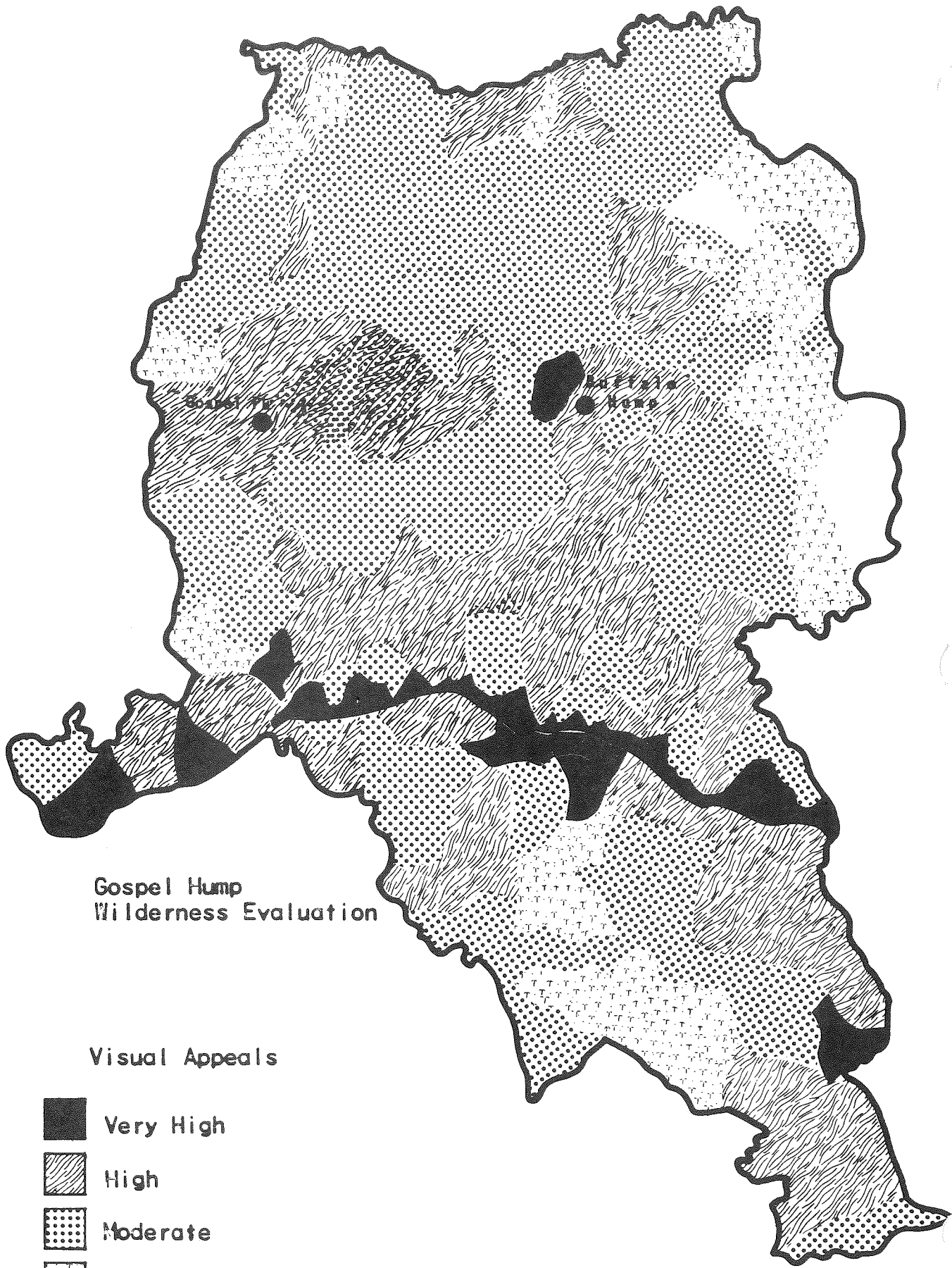
| No. | Criteria | Rating |
|-----|---|--------------------|
| 1. | <u>Basic Terrain Variety</u> | |
| | a. Unit characterized by highly varied terrain; (dramatic slope gradient and relief differences typical); dominated by massive, angular forms, sharp edge definitions; strong figure-ground contrasts, (i.e., figure: peaks; ground; sky). | 24 22 20 |
| | b. Unit characterized by moderately varied terrain; (moderate slope gradient and relief differences typical); dominated by fairly massive, rounded forms; moderate edge definitions; moderate figure-ground contrasts. | 16 14 12 |
| | c. Unit characterized by more or less uniform terrain; (few significant slope gradient or relief differences); predominately gently sloping forms; subtle, edge definitions, weak figure-ground contrasts. | 8 6 |
| 2. | <u>Geologic Features Variety</u> | |
| | a. Unit characterized by numerous large and/or highly significant geologic features; (large cliffs, massive rock formations, craggy peaks and/or ridges, chasms, gorges, etc., are typical examples); major figure objects which tend to dominate other objects of the visual field. | 14 12 |
| | b. Unit characterized by moderately significant geologic features; (minor cliffs and rock formations are typical examples); these figure objects tend toward co-dominance with other objects of the visual field. | 10 8 6 |
| | c. Unit characterized by minor (or no) geologic features; (large boulders, rock spires, etc., are typical examples); these features (if present) are usually subordinate to other objects of the visual field. | 4 2 |
| 3. | <u>Water Features Variety</u> | |
| | a. Unit characterized by numerous and/or highly significant water features; groups of lakes, large lakes (or reservoirs), large marshes, rivers, large streams, large permanent (or semi-permanent) snowfields, large waterfalls, etc., are typical examples); major figure objects which tend to dominate other objects of the visual field. | 18 16 14 |
| | b. Unit characterized by moderately significant water features; (small lakes or ponds, marshes, moderate sized streams, small waterfalls, etc., are typical examples); these figure objects tend toward co-dominance with other objects of the visual field. | 12 10 8 6 |
| | c. Unit characterized by minor (or no) water features; (minor streams (1st or 2nd order), small marshy areas, springs, etc., are typical examples) these features (if present) are usually subordinate to other objects of the visual field. | 4 2 |

FIGURE 4

| | | |
|----|---|-----|
| 1. | <u>Vegetative Pattern Variety</u> | |
| | a. Unit characterized by highly varied vegetative pattern; (presence of many major plant cover types typical); strong mass texture due to variations in plant cover types form properties; natural forest openings and/or isolated forest 'patches' (or tree peninsulas) appear as distinct entities due to sharp edge definition; forest openings and/or 'patches' are major figure objects which may dominate or be co-dominate with other objects of the visual field. | 12 |
| | | 10 |
| | b. Unit characterized by moderately varied vegetative pattern; (presence of few major plant cover types typical); moderate mass texture due to variations in plant cover types form properties; natural forest openings and/or isolated forest 'patches' appear as indistinct entities due to subtle edge definition; forest openings and/or 'patches' tend toward co-dominance or subordination with other objects of the visual field. | 8 |
| | | 6 |
| | c. Unit characterized by uniform vegetative pattern; (presence of only one major cover type typical); low mass texture due to lack of variation in plant cover type form properties; few or no natural forest openings and/or isolated forest 'patches' (very indistinct if present); vegetative cover tends to be ground in relation to the visual field. | 4 |
| | | 2 |
| 5. | <u>Land Use Effects</u> | |
| | a. Unit characterized by the absence of discordant land use effects; existing land use effects, if discernible, are in harmony with the natural objects of the visual field. | 0 |
| | b. Unit characterized by the presence of moderately discordant land use effects; these effects tend toward co-dominance with the natural objects of the visual field. | -4 |
| | | -8 |
| | c. Unit characterized by the presence of highly discordant land use effects; these effects tend to dominate the natural objects of the visual field. | -12 |






NOTES:

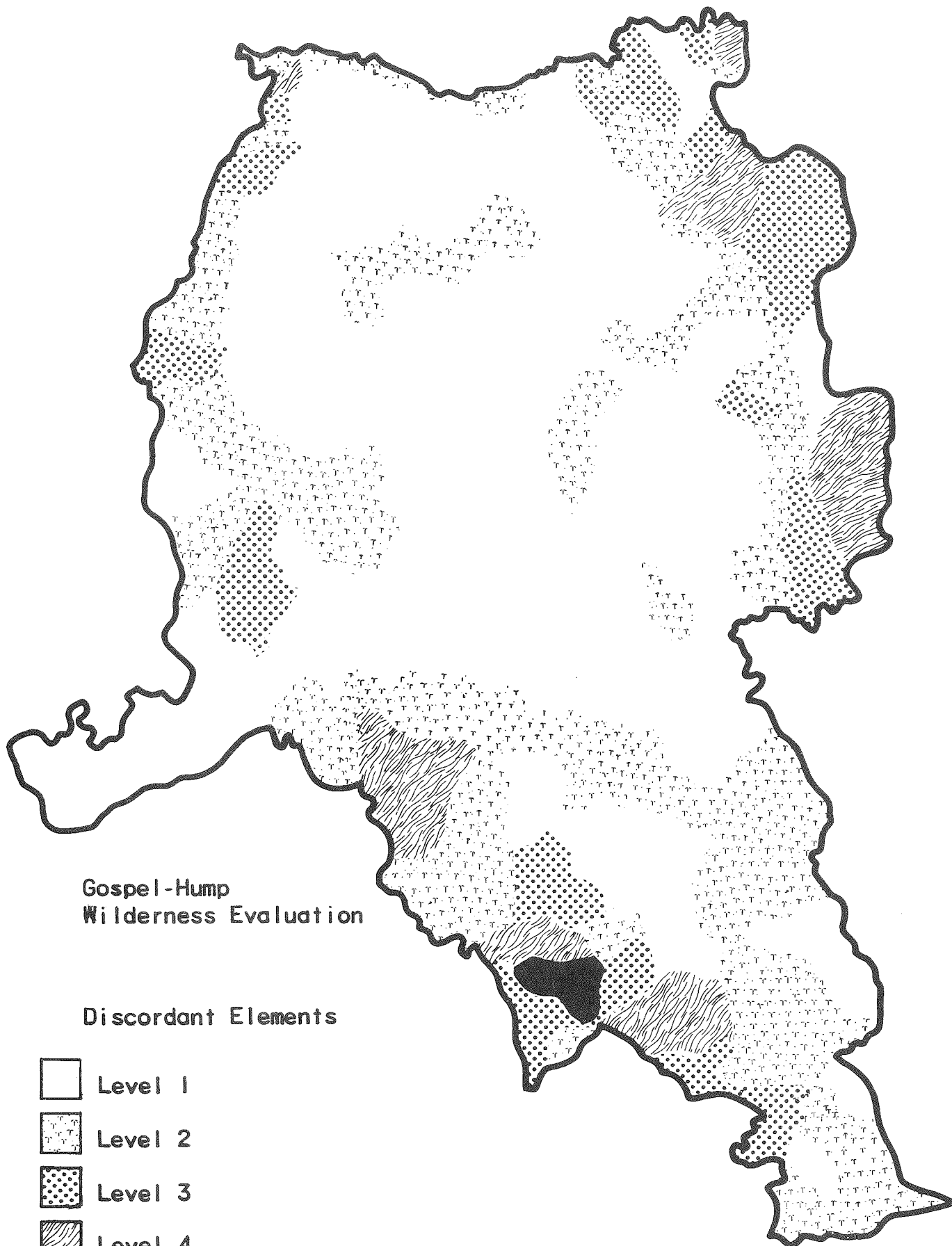
1. The terms that are employed in these criteria are defined in the Northern Region Forest Landscape Management Handbook. (14)
2. The use of the criteria should be limited to mountainous, primarily wildland areas. They are intended to act as a comparison basis for land areas that are basically similar in character.



Gospel Hump
Wilderness Evaluation






Visual Appeals

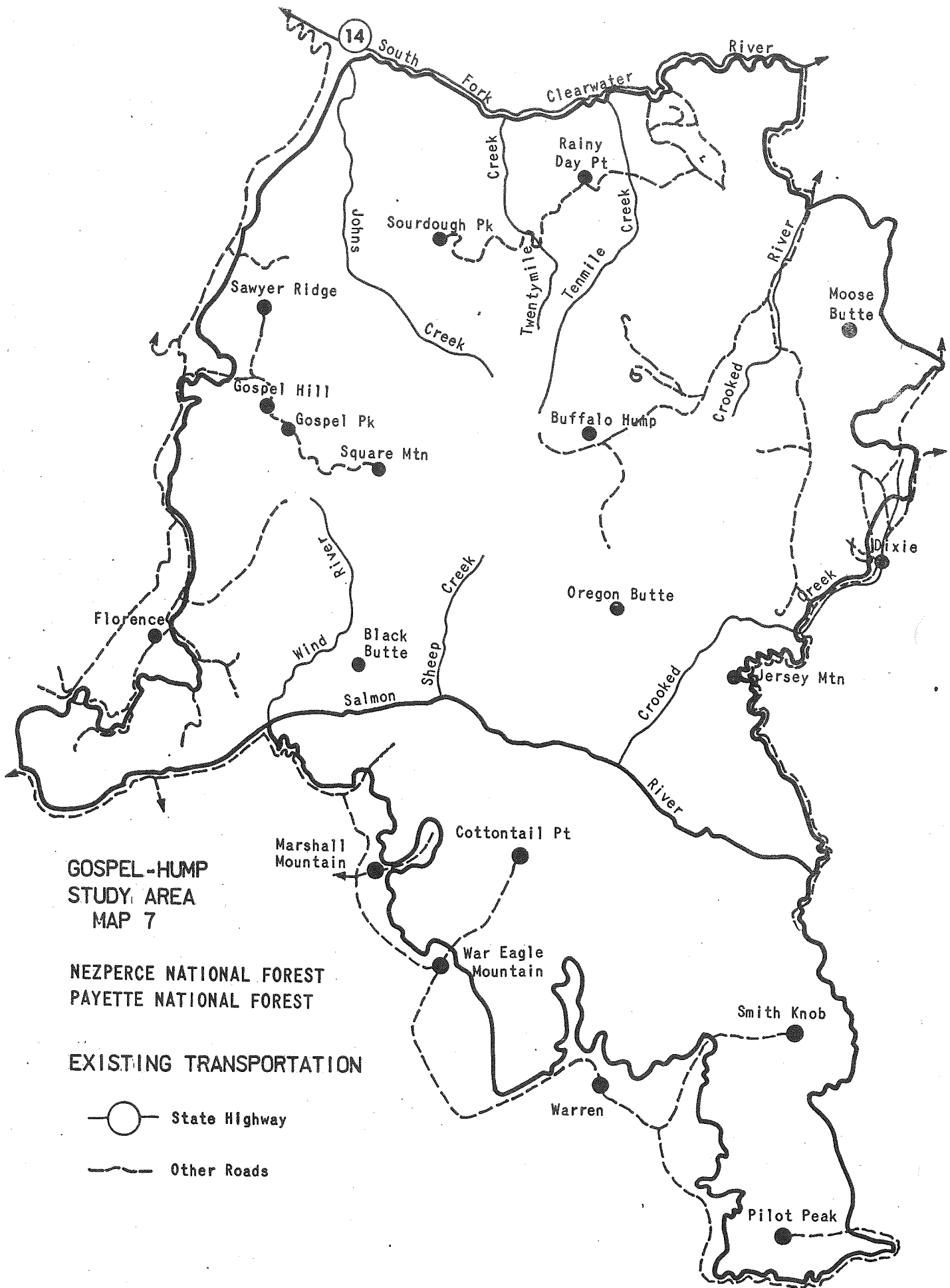
-  Very High
-  High
-  Moderate
-  Low
-  Very Low



Gospel-Hump
Wilderness Evaluation

Discordant Elements

-  Level 1
-  Level 2
-  Level 3
-  Level 4
-  Level 5



C. The Slusher System

A Method For

WILDERNESS QUALITY DETERMINATION

Introduction

This is a method for rating wilderness quality based on the definition of wilderness and the purposes which the Act states it shall serve. It is not a process for analyzing the value for wilderness vs. the value for other management objectives. The same factors that cause an area to rate high for wilderness could also cause it to rate high as a scenic area, pioneer area, or natural area.

It is not all-inclusive of wilderness values, but it is felt that sufficient primary values are considered to come up with an acceptable evaluation.

Rating Criteria

1. Natural Condition

"An area where the earth and its community of life are untrammelled by man"

Trammeling Actions

(Trammel - To restrain, restrict the free play of)

Predator control

Fire control

Damaging a stream or lake

Insect control

"Man - a visitor who does not remain"

Wilderness quality is reduced when there are permanent residents or even camp occupancy for long periods.

"Undeveloped Federal land retaining its primeval character and influence"

Some developments which would reduce wilderness quality:

Lookouts, helicopter landing spots.

Range and wildlife developments such as fences, water developments, game exclosures, transects, salt grounds, heavy grazing.

Recreation developments -- camps (public, outfitters), signs, trails, overuse.

"Primeval character and influence"

In examining the primeval character we take as our reference point the advent of white man on the scene. Though Indians lived in the forests, they did little manipulation of the habitat. Though they overgrazed certain areas with their horses and burned forests for hunting and game management, their numbers and technology were such that the land largely retained its primeval character until the advent of white men.

"Without permanent improvements or human habitation"

Permanent improvements are those structures that remain in place, are tied firmly to the land, and if removed would result in considerable evidence of such removal (Slusher definition). The following are a few examples of permanent improvements which would seriously reduce wilderness quality:

- Dams
- Transmission lines
- Major roads
- Trails blasted out of solid rock cliffs
- Railroads

Houses with year-long residence would be the type of habitation most seriously reducing wilderness quality.

"Protected and managed to preserve its natural conditions"

Natural conditions means much the same as "primeval character and influence." It adds emphasis to the direction that Congress intended; that except as provided in the Act the natural environment with all natural forces of flood, fire, and plant and animal associations, would be protected and sustained.

A wilderness of the size and character that would allow the freest play of natural forces would be of superior quality to a somewhat similar area where more of nature's forces would be controlled.

"Generally appears to have been affected primarily by the forces of nature with the imprint of man's work substantially unnoticeable"

This is the way an area appears to the users. Areas heavily used for recreation, modified for administrative purposes (Ranger Stations, horse pastures, airfields, hay meadows, etc.), mined, logged, or overgrazed would certainly not appear as "affected primarily by the forces of nature" and quality would be reduced accordingly.

2. Outstanding Opportunities for Solitude

- absence of other people
- distance from urban, mechanized environments
- vastness of the area
- elevation raises one far above usual surroundings
- dense forest
- lack of familiar sounds
- expansive views
- wind, snow, cold

3. Ecological Features

- Ecological features contributing to wilderness quality include:
 - Variety of habitat types or ecosystems in various stages of plant succession.
 - Soils in a natural state with micro-organisms functioning in unaltered conditions. (No use of fertilizers, herbicides, pesticides, air pollution fallout).
 - Animal populations largely unaltered by man. Natural balance of prey-predators (light hunting, no use of 1080, no bounties).
 - Presence of rare and endangered species and suitable natural habitat for them.
 - The "edge" influence is minimized; i.e., the impact of man's activities outside the area touch only a small part of the total area.
 - It is large enough that natural processes could be allowed to prevail inside the area without undue impact on the outside. These would include forest insects, disease, fire, and animal populations.

4. Outstanding Opportunities for Primitive and Unconfined Recreation

Recreation which does not depend upon elaborate equipment or means of transportation and conducted in the natural environment without designated playing fields, courses, or enclosures.

Wilderness quality can depend on both the variety and extent of such recreation opportunities. Nearly any recreation activity that can be carried out without elaborate equipment or prepared sites will qualify. Swimming, hiking, fishing, hunting, horseback riding, camping, mountain climbing, cross-country skiing, and canoeing are some examples. Wilderness quality rises with the number and quality of such opportunities.

5. Geologic Features

Examples of geologic features which add to the wilderness quality of those areas in which they occur:

- The basalt columns of the Clearwater embayment
- The Lewis overthrust (Chinese Wall) in the Bob Marshall Wilderness
- Interesting fossils (trilobites in the limestone formation of the Bob Marshall Wilderness)
- Glacial activity, ancient and current, in the Beartooth and Mission Mountains Primitive Areas
- Volcanic cones
- Thermal features

6. Scenic Values

Scenery of various types can add to wilderness value. It can range from alpine to grassland and include:

- Variety and quality of landforms
- Variety and quality of vegetation
- Variety and quality of animal life
- Variety and quality of water forms and interesting combinations of these.

7. Educational and Scientific Values

The extent to which an area can and does serve the public purposes of education and science, while maintaining the wilderness resource, is a test of wilderness quality. Quality might be enhanced because of its convenient location to universities, secondary schools, and research establishments. These values are closely related to ecologic values. The number and quality of opportunities for formal study and for casual learning should both be considered.

Opportunities for scientific benchmarks, gene banks, and natural areas not readily available on other lands would enhance wilderness quality for the above purposes.

Wilderness quality can be rated for each of the above seven criteria and a combined rating can be determined. The procedure is rather simple. The following scoring system is used:

| | <u>Maximum Score</u> |
|---|----------------------|
| Natural (primeval) condition | 30 |
| Opportunities for solitude | 20 |
| Ecologic significance | 20 |
| Opportunities for primitive and unconfined recreation | 9 |
| Geologic features | 7 |
| Science features | 7 |
| Education and scientific values | 7 |
| (convenience for this purpose) | |
| Total Possible | <u>100</u> |

The degree of scoring within an element will depend upon the knowledge of the area available and recognizable differences in quality. Dividing a scoring element into smaller units may be helpful, e.g., "natural condition" might be further divided into several parts taken from the Act (stated above) such as "man a visitor who does not remain," "untrammelled by man," "imprint of man substantially unnoticeable," etc.

When the seven overlays have been prepared they are assembled and areas of common values delineated. If the overlays have been made by different people or without reference to those previously prepared, they will include many small units. Some of the difference in value may be small and of little significance. From this overlay, a smoothed and balanced one is prepared. It will result in fewer units.

It should, however, be pointed out that a unit should not be eliminated just because it is small. Its elimination should rest on its lack of significance. Some of this will become clear as one works with the system.

This system can be used to determine relative wilderness values within parts of a wilderness study area or to find the relative values of several areas within a Ranger District or Forest. While aimed primarily at wilderness quality, the evaluation also sheds light on the value of an area for other types of management or classification. Some examples include pioneer areas, scenic areas, geologic area, natural area, or wildlife management unit.

C. Application & Results

a. Natural Condition - Natural condition was rated primarily in terms of discordant elements. It is recognized that degradation of natural conditions has also occurred that is not readily apparent, i.e., fire control, wildlife management, etc. In using the discordant elements map, it was assumed that visible elements could be defined by REU while intangible effects of man's activity probably differed little throughout the area.

The rankings are as follows:

25-30 - The unit is essentially natural. Little or no visible evidence of man's activity exists. The unit provides a feeling that man has had little impact on the area, except indirectly.

19-24 - Minor discord elements exist in the unit, but they either are not readily apparent across most of the unit, or would not be perceived by most users as greatly altering the natural condition of the unit.

13-18 - Readily apparent discord elements exist. It is felt the discord is strong enough that most users would be aware of it and at least half the users would feel it negatively affects their wilderness experience.

7-12 - Discord elements are either locally severe or widespread in the unit. All, or at least a majority of the users would feel that the unit has been unacceptably altered to allow a quality experience.

1-6 - The natural condition has been severely degraded. Persons seeking a wilderness experience would avoid the unit.

b. Opportunities for Solitude - Solitude is a quality that would vary greatly depending on the individual person concerned. One objective characteristic is the relative accessibility of the area. The accessibility is displayed on the REU map entitled "Remoteness and Accessibility". Accessibility and remoteness measurements tend to indicate the potential for disturbance, which can be considered as converse to opportunities for solitude. Beyond that basic guideline, scores were arrived at subjectively. Standard reductions for travel features are as follows:

Trails - 1-3; Four-Wheel Drive Road - 3-6; Two-Wheel Drive Road - 4-8; Major Travel Route - 5-10

These standard reductions made an upper limit for scoring. With a maximum score of 20 possible, a unit containing a two-wheel drive road would score no more than 15, and the presence of the road could reduce it to 10. The distance to travel features was also considered in the rating. Other factors which contribute to solitude such as vastness, expansive views, and others were included in the point total in a purely subjective manner.

c. Ecologic Features - Ecologic features relate to the ratings for natural conditions, but in some cases not directly. The measurements were largely intuitive, in that adequate information was not at hand for measuring the effect of past activities on the ecological condition or predicting the response to natural management. Maximum points possible were twenty.

d. Opportunities for Primitive and Unconfined Recreation - The unit as a whole can be rated, but the opportunity can easily be evaluated by individual units also.

2 points - Typical backpacking, hunting, hiking, and other activities.

2 points - Significant stream or lake related opportunities.

2 points - Significant opportunities to observe, hunt or photograph animals. Above average habitat supports large number of animals at some time during year, or unusual species such as sheep, goat, or moose.

2 points - Reserved for units adjacent to Salmon River, which greatly enhances opportunities.

1 point - Significant opportunity not otherwise accounted for.

e. Geologic Features - Ratings come directly from ratings established in the Recreation Opportunities Inventory.

7 - Rating 13-14

6 - " 11-12

5 - " 9-10

4 - " 7-8

3 - " 5-6

2 - " 3-4

1 - " 1-2

f. Scenic Features - This rating is made based on the "Probability of Visual Appeal" map indices.

7 = Rating 60-68

6 = " 49-59

4 = " 27-48

2 = " 16-26

1 = " 6-15

g. Education and Scientific Values - The entire area received a uniform rating of 7 for this feature. It would be difficult to display variance in quality across the unit considering the wide range of opportunities possible.

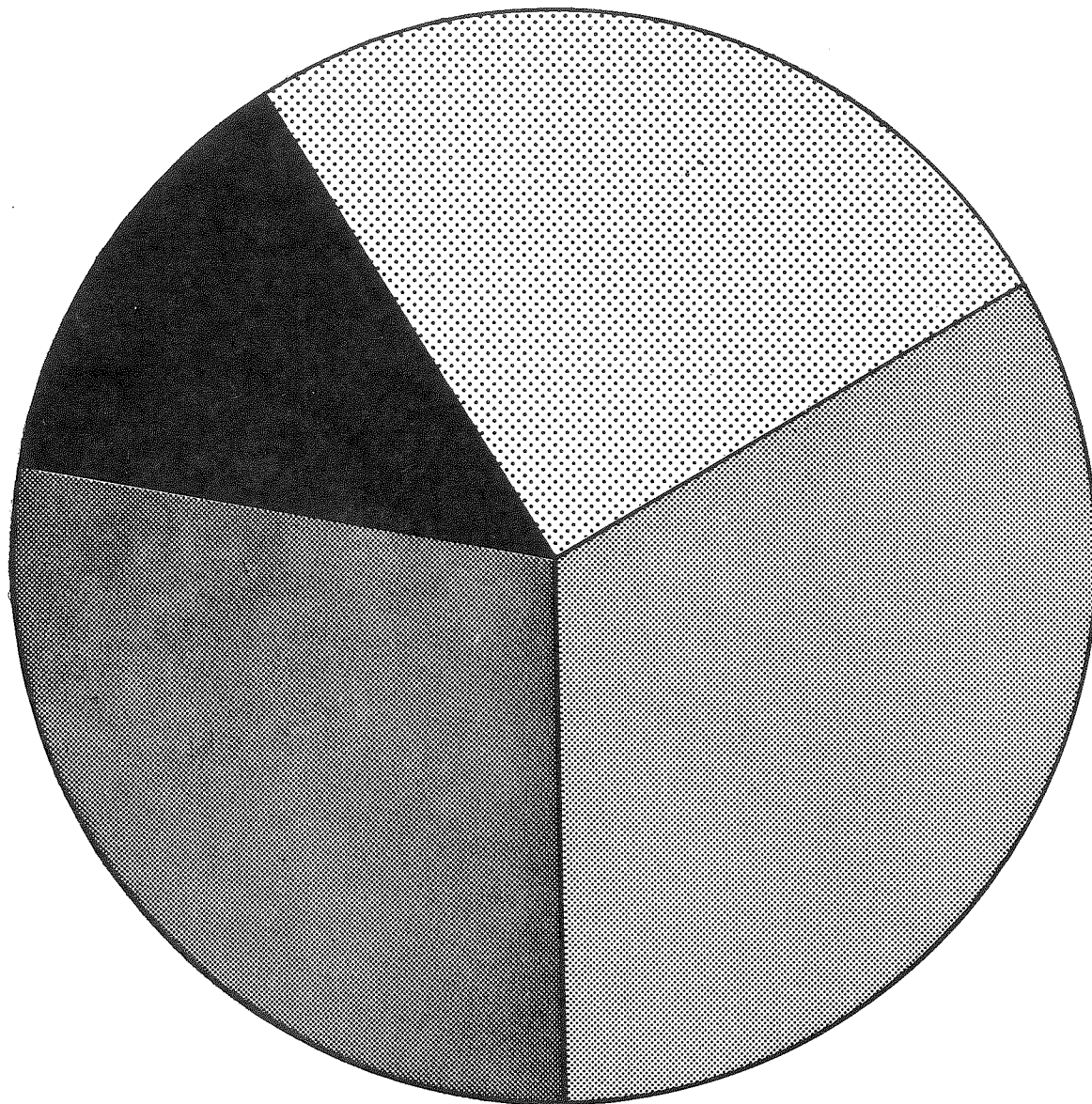
The following charts display the scoring achieved through the Slusher Analysis.

| REU | <i>Natural Condition</i> | | <i>Solitude</i> | <i>Ecologic</i> | <i>Recreation</i> | <i>Geologic</i> | <i>Scenic</i> | <i>Education & Scientific</i> | <i>Total</i> |
|-----|------------------------------|----|-----------------|-----------------|-------------------|-----------------|---------------|---------------------------------------|--------------|
| 1 | 20 | 8 | 15 | 5 | 7 | 6 | 7 | 68 | |
| 2 | 20 | 8 | 15 | 4 | 5 | 4 | 7 | 73 | |
| 3 | 25 | 14 | 17 | 6 | 5 | 6 | 7 | 80 | |
| 4 | 27 | 16 | 17 | 6 | 5 | 4 | 7 | 82 | |
| 5 | 26 | 16 | 19 | 3 | 2 | 4 | 7 | 77 | |
| 6 | 26 | 15 | 18 | 3 | 3 | 4 | 7 | 76 | |
| 7 | 26 | 15 | 18 | 3 | 3 | 4 | 7 | 76 | |
| 8 | 25 | 12 | 16 | 4 | 2 | 2 | 7 | 68 | |
| 9 | 27 | 15 | 17 | 2 | 4 | 4 | 7 | 76 | |
| 10 | 26 | 14 | 16 | 4 | 2 | 4 | 7 | 73 | |
| 11 | 27 | 16 | 18 | 4 | 2 | 4 | 7 | 78 | |
| 12 | 26 | 14 | 18 | 4 | 2 | 4 | 7 | 74 | |
| 13 | 25 | 13 | 17 | 5 | 2 | 2 | 7 | 71 | |
| 14 | 27 | 17 | 18 | 6 | 5 | 6 | 7 | 86 | |
| 15 | 23 | 16 | 17 | 7 | 2 | 4 | 7 | 76 | |
| 16 | 27 | 17 | 18 | 7 | 7 | 6 | 7 | 89 | |
| 17 | 28 | 18 | 19 | 7 | 7 | 6 | 7 | 92 | |
| 18 | 28 | 18 | 18 | 7 | 6 | 6 | 7 | 90 | |
| 19 | 26 | 17 | 18 | 6 | 5 | 4 | 7 | 83 | |
| 20 | 27 | 17 | 19 | 6 | 6 | 6 | 7 | 88 | |
| 21 | 27 | 18 | 18 | 4 | 4 | 2 | 7 | 70 | |
| 22 | 27 | 16 | 17 | 4 | 4 | 4 | 7 | 79 | |
| 23 | 29 | 18 | 19 | 7 | 6 | 6 | 7 | 92 | |
| 24 | 27 | 17 | 18 | 5 | 6 | 6 | 7 | 86 | |
| 25 | 27 | 17 | 18 | 5 | 2 | 2 | 7 | 78 | |
| 26 | 27 | 17 | 17 | 6 | 3 | 4 | 7 | 81 | |
| 27 | 28 | 17 | 18 | 7 | 5 | 4 | 7 | 86 | |
| 28 | 27 | 18 | 18 | 7 | 7 | 7 | 7 | 91 | |
| 29 | 22 | 14 | 14 | 7 | 6 | 6 | 7 | 76 | |
| 30 | 25 | 16 | 15 | 7 | 6 | 6 | 7 | 82 | |
| 31 | 20 | 12 | 10 | 7 | 6 | 5 | 7 | 66 | |
| 32 | 29 | 19 | 19 | 4 | 3 | 4 | 7 | 85 | |
| 33 | 27 | 18 | 18 | 7 | 6 | 4 | 7 | 87 | |
| 34 | 28 | 17 | 19 | 5 | 6 | 4 | 7 | 86 | |
| 35 | 25 | 17 | 15 | 7 | 6 | 6 | 7 | 83 | |
| 36 | 19 | 14 | 9 | 5 | 7 | 6 | 7 | 67 | |
| 37 | 26 | 16 | 17 | 5 | 5 | 4 | 7 | 80 | |
| 38 | 27 | 17 | 18 | 5 | 6 | 4 | 7 | 78 | |
| 39 | 27 | 18 | 19 | 7 | 6 | 4 | 7 | 81 | |
| 40 | 24 | 15 | 16 | 5 | 5 | 4 | 7 | 76 | |
| 41 | 20 | 12 | 10 | 5 | 6 | 4 | 7 | 64 | |
| 42 | 20 | 16 | 9 | 6 | 6 | 6 | 7 | 70 | |
| 43 | 25 | 16 | 15 | 7 | 5 | 6 | 7 | 81 | |
| 44 | 27 | 18 | 18 | 4 | 3 | 4 | 7 | 81 | |
| 45 | 21 | 10 | 16 | 9 | 6 | 7 | 7 | 76 | |
| 46 | 27 | 18 | 16 | 4 | 3 | 4 | 7 | 79 | |
| 47 | 28 | 18 | 19 | 5 | 6 | 6 | 7 | 89 | |
| 48 | 29 | 19 | 19 | 4 | 5 | 4 | 7 | 87 | |
| 49 | 27 | 18 | 17 | 7 | 6 | 6 | 7 | 88 | |
| 50 | 26 | 19 | 16 | 4 | 6 | 6 | 7 | 84 | |

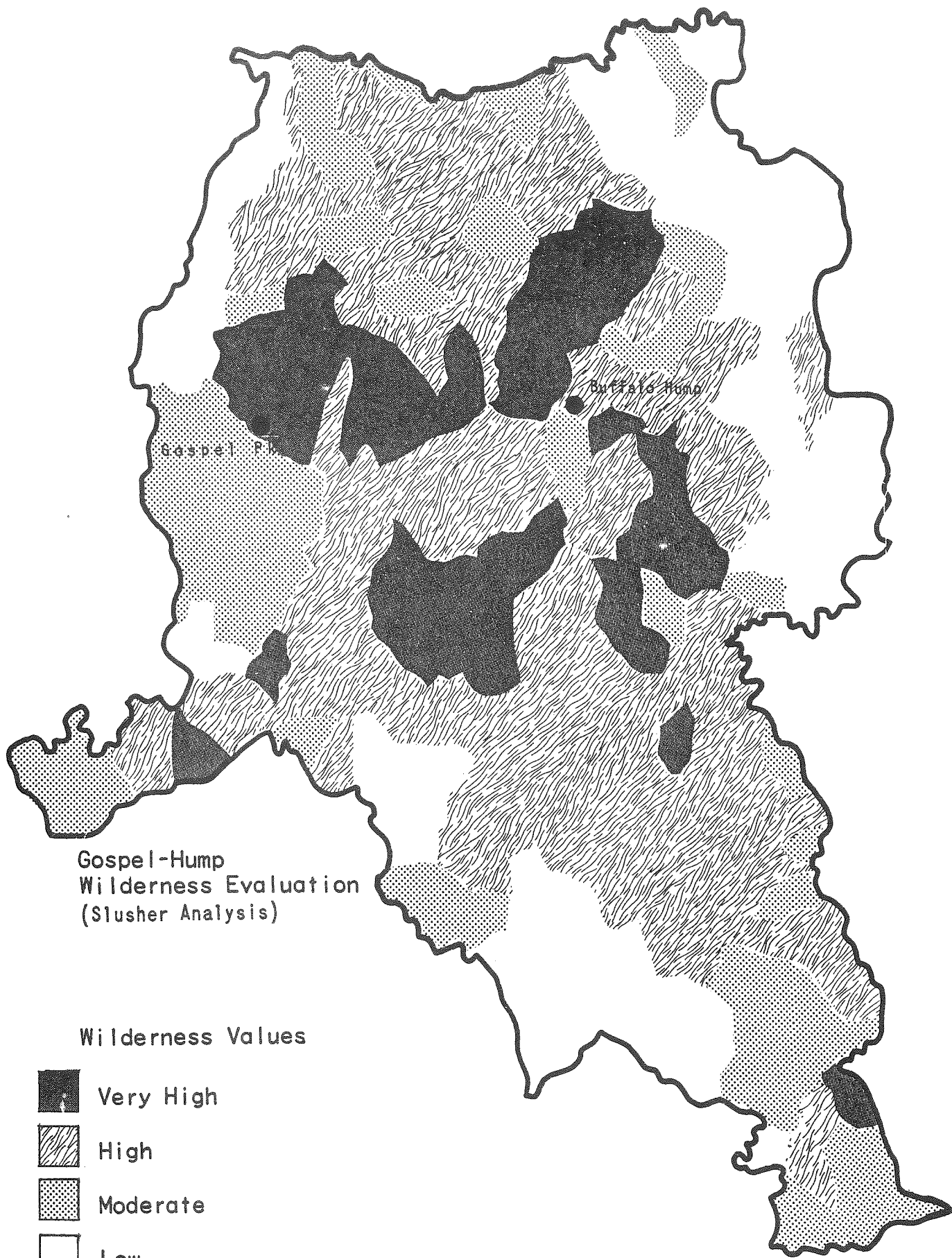
| | | | | | | | | |
|-----|----|----|----|---|---|---|---|----|
| 51 | 23 | 10 | 15 | 9 | 6 | 7 | 7 | 77 |
| 52 | 29 | 19 | 19 | 4 | 3 | 4 | 7 | 85 |
| 53 | 29 | 19 | 19 | 4 | 3 | 4 | 7 | 85 |
| 54 | 27 | 18 | 18 | 5 | 6 | 6 | 7 | 87 |
| 55 | 19 | 16 | 11 | 3 | 4 | 4 | 7 | 64 |
| 56 | 27 | 20 | 18 | 5 | 5 | 4 | 7 | 86 |
| 57 | 25 | 16 | 15 | 7 | 6 | 6 | 7 | 82 |
| 58 | 29 | 18 | 19 | 4 | 6 | 4 | 7 | 87 |
| 59 | 26 | 16 | 16 | 4 | 6 | 6 | 7 | 81 |
| 60 | 27 | 16 | 15 | 4 | 5 | 4 | 7 | 78 |
| 61 | 19 | 14 | 12 | 4 | 4 | 4 | 7 | 64 |
| 62 | 23 | 12 | 15 | 9 | 7 | 7 | 7 | 80 |
| 63 | 21 | 14 | 15 | 5 | 4 | 4 | 7 | 70 |
| 64 | 13 | 5 | 9 | 2 | 2 | 2 | 7 | 40 |
| 65 | 8 | 5 | 7 | 3 | 2 | 1 | 7 | 33 |
| 66 | 19 | 9 | 13 | 4 | 3 | 4 | 7 | 59 |
| 67 | 28 | 18 | 19 | 2 | 5 | 4 | 7 | 83 |
| 68 | 27 | 16 | 18 | 4 | 3 | 4 | 7 | 79 |
| 69 | 19 | 9 | 13 | 4 | 1 | 2 | 7 | 55 |
| 70 | 27 | 16 | 17 | 4 | 3 | 4 | 7 | 78 |
| 71 | 13 | 15 | 8 | 3 | 2 | 2 | 7 | 50 |
| 72 | 19 | 8 | 12 | 4 | 2 | 2 | 7 | 54 |
| 73 | 26 | 15 | 17 | 4 | 2 | 2 | 7 | 73 |
| 74 | 26 | 17 | 17 | 4 | 1 | 4 | 7 | 76 |
| 75 | 27 | 17 | 18 | 4 | 4 | 4 | 7 | 81 |
| 76 | 19 | 8 | 14 | 5 | 4 | 4 | 7 | 61 |
| 77 | 26 | 15 | 17 | 7 | 7 | 6 | 7 | 78 |
| 78 | 28 | 18 | 19 | 4 | 6 | 6 | 7 | 88 |
| 79 | 28 | 18 | 19 | 2 | 6 | 6 | 7 | 86 |
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| 83 | 13 | 10 | 8 | 2 | 3 | 2 | 7 | 45 |
| 84 | 13 | 12 | 8 | 2 | 3 | 2 | 7 | 47 |
| 85 | 19 | 8 | 10 | 2 | 3 | 2 | 7 | 51 |
| 86 | 25 | 15 | 17 | 2 | 2 | 2 | 7 | 70 |
| 87 | 22 | 13 | 15 | 3 | 6 | 4 | 7 | 70 |
| 88 | 8 | 12 | 2 | 2 | 2 | 1 | 7 | 34 |
| 89 | 8 | 12 | 2 | 2 | 3 | 2 | 7 | 36 |
| 90 | 8 | 12 | 2 | 2 | 3 | 2 | 7 | 36 |
| 91 | 14 | 12 | 9 | 2 | 3 | 4 | 7 | 51 |
| 92 | 22 | 10 | 15 | 2 | 3 | 4 | 7 | 63 |
| 93 | 20 | 8 | 12 | 2 | 3 | 4 | 7 | 56 |
| 94 | 8 | 8 | 2 | 4 | 2 | 2 | 7 | 33 |
| 95 | 13 | 8 | 8 | 4 | 3 | 4 | 7 | 47 |
| 96 | 25 | 9 | 15 | 4 | 3 | 4 | 7 | 67 |
| 97 | 13 | 6 | 6 | 4 | 4 | 4 | 7 | 44 |
| 98 | 19 | 10 | 12 | 4 | 4 | 4 | 7 | 60 |
| 99 | 26 | 15 | 18 | 2 | 4 | 4 | 7 | 76 |
| 100 | 27 | 17 | 18 | 5 | 7 | 6 | 7 | 87 |
| 101 | 27 | 17 | 18 | 2 | 3 | 4 | 7 | 78 |
| 102 | 23 | 10 | 15 | 4 | 3 | 4 | 7 | 66 |
| 103 | 26 | 10 | 17 | 5 | 6 | 6 | 7 | 77 |
| 104 | 13 | 6 | 8 | 4 | 5 | 4 | 7 | 47 |
| 105 | 20 | 8 | 13 | 4 | 5 | 4 | 7 | 61 |

| | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|
| 106 | 27 | 10 | 18 | 2 | 2 | 2 | 7 | 68 |
| 107 | 19 | 8 | 12 | 5 | 5 | 4 | 7 | 60 |
| 108 | 25 | 14 | 16 | 6 | 5 | 4 | 7 | 77 |
| 109 | -- | -- | -- | -- | -- | -- | -- | |
| 110 | 19 | 10 | 13 | 6 | 5 | 4 | 7 | 64 |
| 111 | 20 | 10 | 13 | 4 | 3 | 4 | 7 | 61 |
| 112 | 26 | 12 | 17 | 6 | 4 | 4 | 7 | 76 |
| 113 | 19 | 4 | 12 | 4 | 2 | 4 | 7 | 52 |
| 114 | 11 | 8 | 7 | 4 | 3 | 4 | 7 | 44 |
| 115 | 14 | 8 | 8 | 4 | 2 | 4 | 7 | 47 |
| 116 | 19 | 8 | 13 | 4 | 1 | 2 | 7 | 54 |
| 117 | 13 | 12 | 9 | 6 | 2 | 2 | 7 | 51 |
| 118 | 26 | 14 | 17 | 6 | 2 | 4 | 7 | 76 |
| 119 | 27 | 17 | 18 | 6 | 3 | 6 | 7 | 84 |
| 120 | 20 | 10 | 13 | 4 | 2 | 4 | 7 | 60 |
| 121 | 19 | 10 | 12 | 4 | 4 | 4 | 7 | 60 |
| 122 | 22 | 10 | 12 | 2 | 3 | 4 | 7 | 60 |
| 123 | 14 | 10 | 9 | 2 | 2 | 2 | 7 | 46 |
| 124 | 14 | 6 | 9 | 2 | 2 | 2 | 7 | 42 |
| 125 | 22 | 12 | 12 | 7 | 6 | 6 | 7 | 72 |
| 126 | 24 | 13 | 14 | 4 | 6 | 6 | 7 | 74 |
| 127 | 25 | 15 | 16 | 3 | 4 | 4 | 7 | 74 |
| 128 | 20 | 15 | 14 | 5 | 5 | 4 | 7 | 70 |
| 129 | 20 | 12 | 13 | 4 | 5 | 4 | 7 | 65 |
| 130 | 15 | 16 | 9 | 5 | 6 | 4 | 7 | 62 |
| 131 | 17 | 18 | 12 | 3 | 4 | 4 | 7 | 65 |
| 13 | -- | -- | -- | -- | - | - | - | -- |
| 133 | 27 | 17 | 19 | 3 | 7 | 7 | 7 | 87 |
| 134 | 19 | 8 | 14 | 6 | 5 | 6 | 7 | 65 |
| 135 | 19 | 10 | 14 | 6 | 4 | 4 | 7 | 64 |
| 136 | 22 | 14 | 16 | 6 | 5 | 6 | 7 | 76 |
| 137 | 10 | 12 | 6 | 7 | 6 | 4 | 7 | 52 |
| 138 | 27 | 12 | 18 | 9 | 4 | 6 | 7 | 83 |
| 139 | 25 | 12 | 17 | 9 | 5 | 7 | 7 | 84 |
| 140 | 24 | 12 | 17 | 9 | 5 | 6 | 7 | 80 |
| 141 | 21 | 8 | 13 | 9 | 4 | 6 | 7 | 68 |
| 142 | 14 | 8 | 10 | 2 | 4 | 4 | 7 | 49 |
| 143 | 12 | 14 | 10 | 5 | 6 | 4 | 7 | 58 |
| 144 | 19 | 18 | 15 | 5 | 6 | 6 | 7 | 77 |
| 145 | 19 | 15 | 13 | 7 | 7 | 6 | 7 | 74 |
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| 149 | 16 | 6 | 12 | 2 | 2 | 2 | 7 | 47 |
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| 152 | 27 | 19 | 18 | 4 | 4 | 4 | 7 | 83 |
| 153 | 25 | 18 | 12 | 6 | 4 | 4 | 7 | 76 |
| 154 | 25 | 19 | 16 | 2 | 5 | 4 | 7 | 78 |
| 155 | 26 | 18 | 17 | 2 | 6 | 6 | 7 | 82 |

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|-----|----|----|----|---|---|---|---|----|
| 156 | 23 | 15 | 15 | 5 | 5 | 6 | 7 | 76 |
| 157 | 20 | 10 | 12 | 7 | 5 | 6 | 7 | 67 |
| 158 | 25 | 12 | 14 | 7 | 5 | 6 | 7 | 76 |
| 159 | 26 | 16 | 17 | 7 | 5 | 6 | 7 | 84 |
| 160 | 20 | 14 | 13 | 7 | 6 | 7 | 7 | 75 |
| 161 | 22 | 12 | 14 | 3 | 5 | 4 | 7 | 74 |
| 162 | 22 | 12 | 14 | 4 | 6 | 4 | 7 | 69 |
| 163 | 19 | 10 | 8 | 6 | 5 | 6 | 7 | 61 |
| 164 | 13 | 8 | 8 | 2 | 3 | 2 | 7 | 43 |
| 165 | 10 | 10 | 4 | 2 | 3 | 2 | 7 | 38 |
| 166 | 9 | 4 | 2 | 2 | 3 | 2 | 7 | 29 |
| 167 | 14 | 8 | 10 | 2 | 2 | 2 | 7 | 45 |
| 168 | 16 | 8 | 11 | 2 | 5 | 4 | 7 | 53 |
| 169 | 16 | 14 | 9 | 2 | 3 | 2 | 7 | 53 |
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| 186 | 22 | 14 | 15 | 9 | 6 | 6 | 7 | 79 |
| 187 | 21 | 10 | 14 | 9 | 6 | 7 | 7 | 74 |
| 188 | 20 | 14 | 14 | 8 | 6 | 6 | 7 | 75 |
| 189 | 19 | 8 | 10 | 8 | 5 | 6 | 7 | 63 |



Distribution of REU'S as related to wilderness values by Slusher Evaluation System



IV. Boundary Selection

A. Alternatives

Alternative boundary locations were delineated primarily on values identified by the Slusher Analysis. A full range of alternatives was derived, ranging in size from a core area that included 159,000 acres to the total contiguous roadless area.

While the primary analysis is on the desirability for wilderness, it is hardly possible to exist in a vacuum and totally ignore other obvious resource values. No attempt was made to identify trade-off values in this report, as that will be accomplished in the Land Management Plan and Draft Environmental Statement. Known values were recognized in several cases however.

B. Wild & Scenic River Corridor

It is understood that management of the Salmon River corridor will be in accordance with direction in the Wild & Scenic Rivers Act of 1968. Wilderness study is not proposed for the corridor in any alternative.

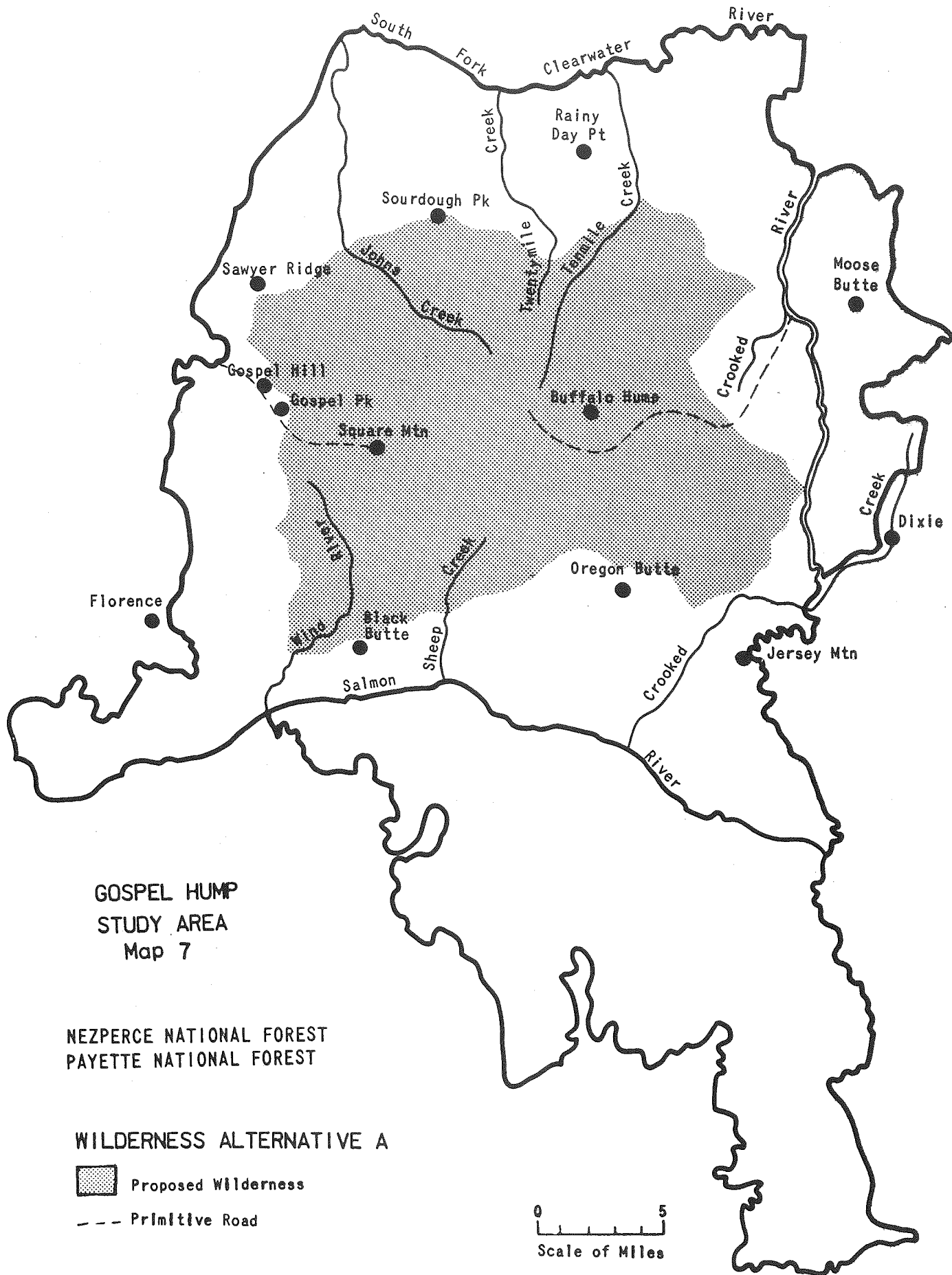
Alternative A - 159,500 Acres

Core Area - The highest concentration of wilderness values as described by the Slusher System is located within the area delineated as Alternative A. The glacially formed landscapes contain craggy peaks, precipitous slopes, gentle mountain meadows, and jewel-like mountain lakes.

Seasonal range is provided for a number of wildlife species including elk, moose, whitetail and mule deer, mountain goat, cougar, black bear, and numerous smaller birds and animals. Recreational use currently consists of hunting, fishing, scenic enjoyment, hiking, camping, and extensive use of off-road vehicles including jeeps, snowmobiles, and motorbikes.

Mining has had major impacts in the vicinity of Buffalo Hump. Gold was discovered in the late 1800's and the ensuing rush resulted in a large area of patented mining claims, surface disturbance, and construction of buildings and towns. While there is historical value to much of the area, the early mining also demonstrated the presence of valuable minerals in the unit.

Suitability - The unit meets the criteria established in the Wilderness Act for inclusion in the system. While the area around Buffalo Hump and Wildhorse Lake contain some non-conforming uses and obvious evidence of man's activity, there is much historical significance which is a positive wilderness quality.



Availability - Availability will receive full consideration in the Draft Environmental Impact Statement by displaying the cost (in terms of resource opportunities foregone) of each wilderness study alternative. Primary considerations are timber harvest, minerals opportunity, ORV use, wildlife, and fisheries.

Need - At the local level there is little need for additional wilderness acreage. With few exceptions, the local populace is stringently opposed to more wilderness. A large acreage of land in the vicinity of Idaho County already is classified, and other units nearby undoubtedly will be. The Selway-Bitterroot Wilderness contains 1.2 million acres, the Hells Canyon Wilderness contains approximately 193,840 acres of classified wilderness, and 110,000 additional acres are being studied for possible classification. The Idaho Primitive Area and Salmon River Breaks Primitive Area are awaiting Congressional action which presumably will add 1.1-2.3 million acres to the National Wilderness Preservation System. There are also a number of roadless and undeveloped areas that contain high wilderness values. Future study may allocate these to further consideration for wilderness.

Any need for wilderness classification in the Gospel-Hump stems from Regional and National demand. While it would be desirable to spread out the Wilderness System as much as possible, it is a simple fact that many areas of the Nation have few or no areas remaining that are suitable for wilderness. Central Idaho has an abundance. If the acreage within the Wilderness System is to be expanded, Idaho and other lightly developed States will contribute disproportionate shares.

One factor concerning need that should be spoken to is the off-road vehicle user group. Wilderness users often complain of "Wilderness on the rocks," because much classified wilderness is high elevation, low production sites. Their claim is valid in that many areas lack sufficient variety. As the high rocky areas are put into wilderness, they are removed from use by the ORV fan. The point is being reached where little high elevation scenic land is available for ORV use in this portion of Idaho. The limited soils data available indicates portions of the Gospel-Hump would be amenable to ORV use with proper management.

Manageability - Wilderness management of this area is feasible. The presence of patented mining claims and established ingress-egress on the road leading to the Buffalo Hump will increase management complexity. Boundary locations are generally easily defined on the ground, tending to follow major ridges in most areas. Roads in the vicinity of Gospel Mountain-Square Mountain could cause problems depending on management objectives and prescriptions.

Alternative B - 206,000 Acres

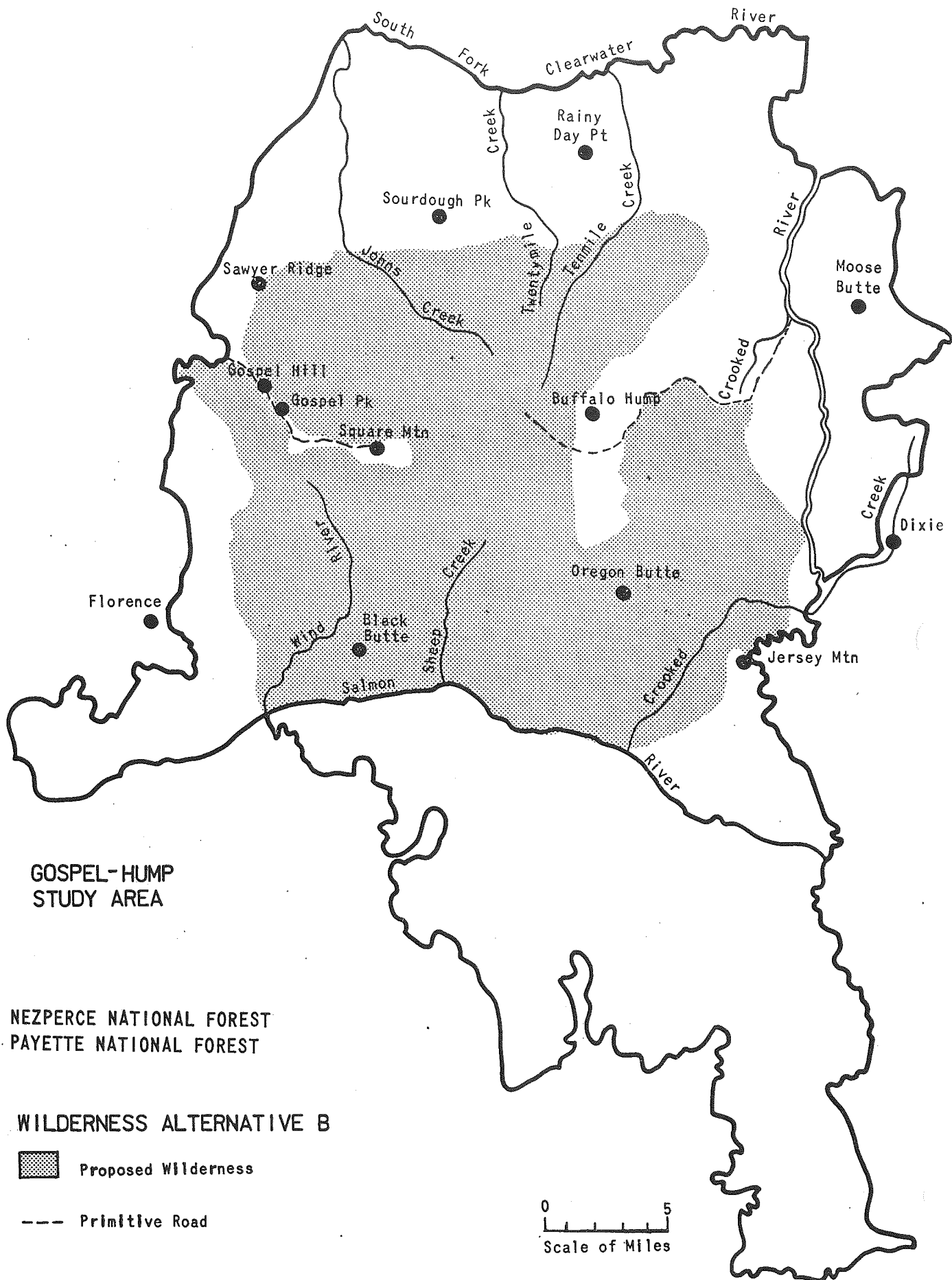
Following the appeal and subsequent remand of the Rainy Day and Mill Creek Land Use Plans, the community leaders of Grangeville and Idaho County felt a strong need to have the issues resolved in order to maintain economic stability. A meeting was held with Senator Frank Church, D - Idaho, to see if legislative assistance was possible. Senator Church agreed to help by introducing a bill or an amendment to an existing bill which would designate a portion of the Gospel-Hump as Wilderness, and freeing the remaining area for development. The Senator felt he could only do this if the selected area was agreed upon by factions representing industry and other local interests, and environmental groups such as the Wilderness Society, Sierra Club, and others.

The two factions selected representatives and negotiations began in May 1977. After numerous meetings and hours of deliberation, a compromise agreement was reached and is shown as Alternative B on the map following this section. The agreement was subsequently entered as a legislative proposal by Senator Church.

The north boundary of the unit is similar to Alternative A with some small variance. The south boundary extends to the Salmon River. East and west boundaries are similar to Alternative A except for two major exclusions. The patented mining ground, roads, and other developments were excluded by the boundary on the east. On the west side, a similar exclusion follows the road to Square Mountain and a portion of Wind River Meadows. The exact location of the lines was to be decided by the Forest Service following passage of legislation. However, the area would be classified "Instant Wilderness" as opposed to Wilderness Study.

As identified, the unit contains two distinct, but very inter-related ecosystems. The sharply dissected breaklands of the Salmon River are an abrupt change from the high elevation glaciated lands of the Gospel-Hump.

Suitability - The lands described in Alternative B are suitable for wilderness classification. By excluding the Buffalo Hump developed area and Square Mountain road, the amount of non-conforming area was reduced. Except for fire control, man has done little to influence the natural conditions of the Salmon River Canyon. A few early settlers and miners were able to scratch out a meager living from the arid lands, but the historical value of these few homesteads is a testimony to the perseverance and hard work our forefathers put forth in settling the western United States. It is felt, therefore, that some of these older vestiges of man's activities enhance, rather than detract, from wilderness quality.



GOSPEL-HUMP
STUDY AREA

NEZPERCE NATIONAL FOREST
PAYETTE NATIONAL FOREST

WILDERNESS ALTERNATIVE B

Proposed Wilderness

--- Primitive Road

0 5
Scale of Miles

Availability - See Alternative A.

Need - See Alternative A.

Manageability - The corridor exclusions to Buffalo Hump and Square Mountain pose difficult management problems, as well as boundary locations at several other points.

The corridor boundary lines cannot be located where they can easily be identified on the ground. Depending on the management objectives within the excluded area, a strong potential for conflict exists.

Managing for solitude will be difficult, if not impossible, for a much larger area than just the corridors. The sounds and sight of motorized vehicles will intrude over a large area. Since the feeling of solitude is affected not only by sight and sound, but also the potential for disturbance, the area of conflict is increased even greater.

Similarly, along the Salmon River there will be only a low level of solitude. Research has demonstrated that satisfaction decreases as encounters increase, particularly encounters with groups using non-wilderness modes of transportation. Encounters between backpackers resulted in a decrease in satisfaction of 80% with six encounters per day in one study, while in the Boundary Waters Canoe Area, a reduction of 90% satisfaction resulted from encounters between canoeists and powerboaters at the rate of one per day (3). This would seem to indicate potentially severe user conflicts in the Salmon River Corridor between jet boat users, rafters and other floaters, and hikers.

Unless boundaries are carefully chosen, management of and for natural conditions will be hampered by the corridor exclusions. The developed corridors are located at the upper end of both principal watersheds, and tributaries into the Salmon and Clearwater River systems will be somewhat affected. The distribution of wildlife populations will be affected.

For some purposes, the inclusion of the Salmon River Breaks is a decided advantage. The variety of ecosystems is increased markedly. All season game ranges are included within the proposal, rather than just summer range as in Alternative A.

While management of the described unit is feasible, it would present some difficult management problems and potential user conflict.

Alternative C - 255,000 Acres

This unit includes the northern boundary as described in Alternative A, and stretches south across the Salmon River to include the breaks on both sides of the river*. There are no interior exclusions as in Alternative B.

The addition completes the ecosystem contained within the Salmon River Canyon. The added lands are high in wilderness quality, being almost totally undeveloped and natural, highly scenic, and possessing other inherent wilderness values. Motorized vehicle use, airplane traffic, and other non-conforming activities associated with private land near Mackay Bar and the Badley Ranch are intrusions on solitude and natural condition, but do not seriously affect the unit.

Vegetative conditions vary from those found on the generally south-facing slopes included in Alternative B. Conifer regeneration on large burned areas is rapidly advancing to canopy closure, thus eliminating valuable wildlife winter range. In general, sites south of the Salmon River are much drier and less productive than similar sites north of the river. This is due both to differing moisture regimes and soil conditions.

The breaklands on both sides of the river receive little recreation use. There is a small amount of backpacking and hunting use along major trails, but the steep slopes present a formidable obstacle to any cross-country travel. The rapid elevational changes of even several of the major trails would present difficulties for many users.

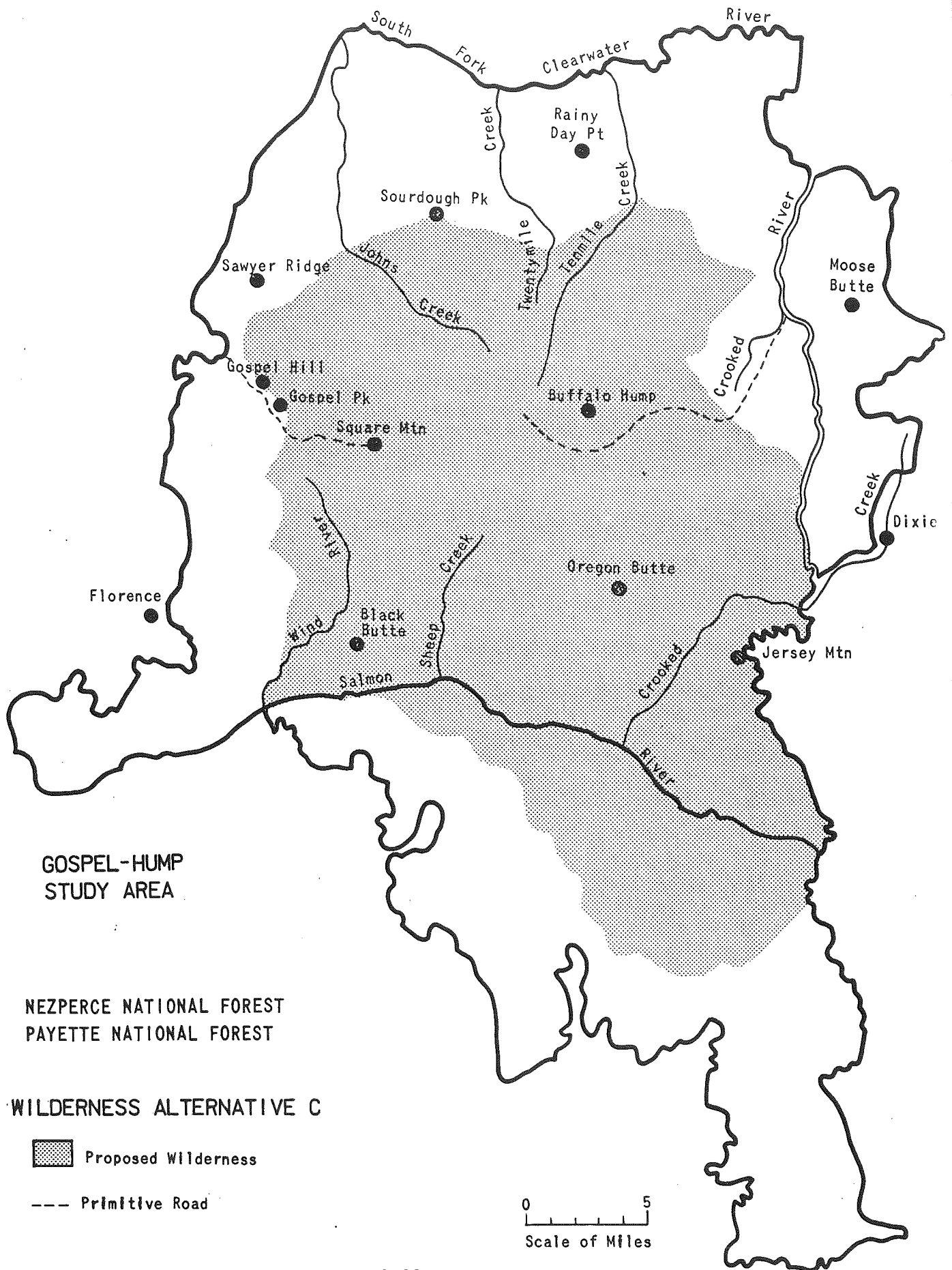
One factor that enhances this alternative and the remaining two is the contiguity of the Porphyry Roadless Unit which lies between the South Fork Salmon River and the Idaho Primitive Area. The Porphyry Roadless Unit is being recommended for wilderness study in the soon-to-be-released Warren Land Management Plan and Draft Environmental Statement. While the Gospel-Hump roadless area evaluation did not include Porphyry, its relationship must be considered in the decision concerning need for wilderness study within the Gospel-Hump contiguous roadless unit.

Suitability - With the exception of the nonconforming uses discussed in Alternatives A and B, the area is suitable. The areas of private land are essentially the only non-conforming use within the added area, and the effect is not significant.

Availability - See Alternative A.

Need - See Alternative A.

Manageability - The boundary location on the breaks south of the Salmon River provides reasonably good integrity of the unit. The California Creek drainage is severed, but it was felt this boundary location was superior in overall wilderness quality than using the roaded ridge at the headwaters of California Creek.



Alternative D - 361,550 Acres

This unit extends from the breaks south of the Salmon River (Alternative C boundary) to the South Fork Clearwater River. The unit excludes the roadless portion of the Kelly-Bullion Planning Unit west of the area allocated for additional wilderness study with the contiguous roadless area.

The lands added at the north end are primarily heavily timbered. Breaklands associated with major drainages are quite steep in places, with the remaining areas having moderately steep to gentle terrain. Scenic values of most of the area are moderate when compared to the high quality scenery of the Salmon River Canyon and high elevation lands. Stream zones contain both resident and anadromous fisheries, and associated breaklands are important big game winter range.

Timber values are high, with this northern end of the roadless unit capable of supporting an annual harvest of 20-25 MMBF of timber.

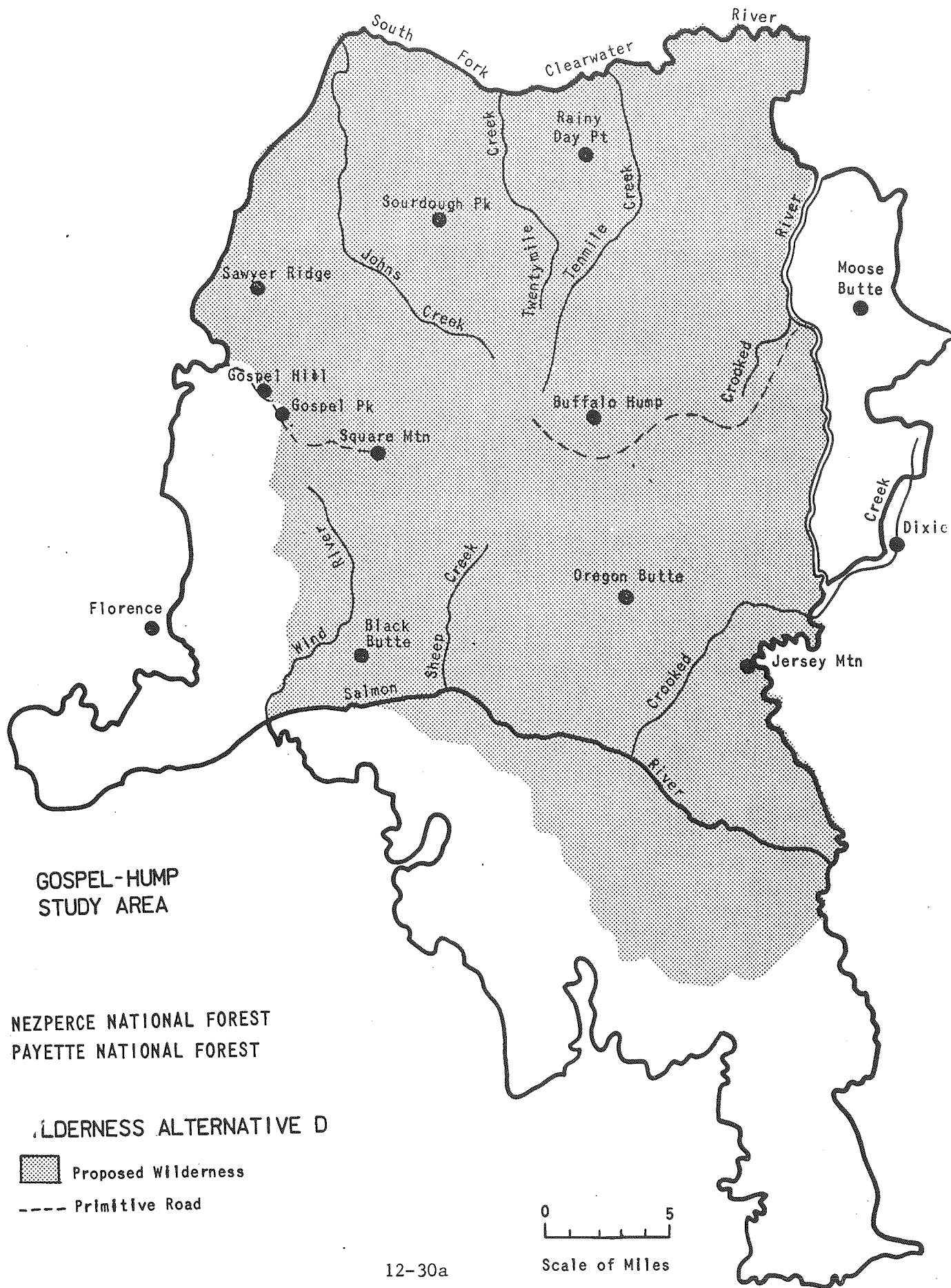
A number of discord elements are present, principally related to roads and mining. Dredge mining of the American River has strongly influenced the aquatic habitat and visual corridor. Mining and prospecting of other areas has left significant areas of surface disturbance. The Sourdough Peak road, with an average 12' maintained running surface, penetrates the roadless unit for approximately 27 miles.

With the noted exceptions, conditions in much of the area are essentially natural. Except during the big game season, the area is little used and a high probability for solitude exists. The potential for encounters is much less than in the high elevation lands, because of both light use and much shorter sight and hearing distances resultant from the extensive timber stands. There is an absence of highly significant attractive features. The South Fork Clearwater River and associated landscapes offer high visual qualities, but the adjacent highway negates wilderness values in the visual corridor.

Suitability - The area free from discordant land use effects can be considered suitable for wilderness. The areas of nonconforming uses present difficulties depending on the purity of wilderness desired. The areas could be rehabilitated to some degree and at some point in the future would return to near natural condition. For the foreseeable future, however, the wilderness quality would definitely be lowered by the presence of roads and disturbed areas. Wilderness study could provide direction as to specific needs.

Need - See Alternative A.

Availability - See Alternative A.



Alternative E - 540,700 Acres

Alternative E includes all contiguous lands of the Gospel-Hump Roadless Unit. The southern boundary is extended to a line just north of Warren, and a small tail extends into Valley County. North of the Salmon River, the roadless portion of the Kelly-Bullion Planning Unit is included.

This fairly large increase in size adds little in the way of wilderness values, variety of ecosystems, or scenic variety.

The lands in the Kelly-Bullion addition generally have high scenic values, particularly those units adjacent to the Salmon River. The lands adjacent to the west boundary of the Gospel-Hump Planning Unit fringe on the glaciated subalpine lands and also offer some high scenic values.

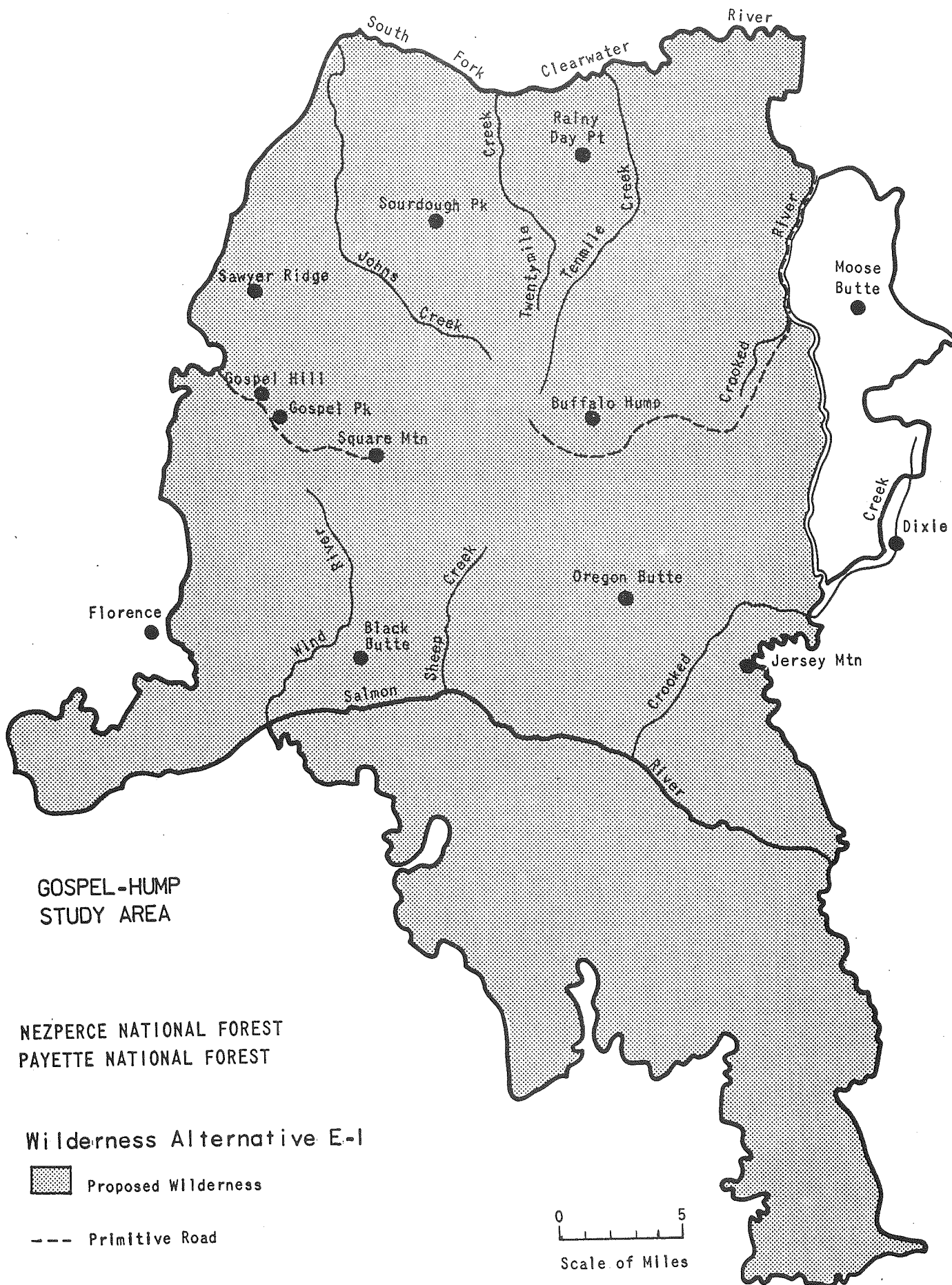
Fire control activities have disrupted the natural landscape with bulldozer trails. Four-wheel drive and motorbike trails intrude into the area. Evidence of past minerals related activity is present.

Lands in the Florence Basin are gentle to rolling, with dense stands of timber interspersed with streams and meadows. The area is readily accessible by two-wheel drive road.

In the Warren vicinity, past and present mining activities have severely scarred the landscape. Large quantities of gold were removed from the stream channels by dredges digging as deep as 35 feet into the gravels. Gold and silver were also produced from lode claims in the area. The Marshall Lake Mining District was also an important producer in the late 1800's and early 1900's. While activities have nearly come to a standstill as far as actual production is concerned, there is definitely a zone of mineralization within the area that warrants additional survey.

While a few scattered areas are high in qualities related to wilderness, generally the Warren area ranks low due to discordant land use effects, access, and low scenic values. The South Fork Salmon River has high scenic qualities, but roads, private land and two timber harvest units disrupt wilderness qualities. The upper portion of the California Creek drainage has high scenic values, and much of it was rated as high in wilderness qualities. The headwaters, however, are nearly surrounded by roads and a road intrudes into the main drainage to a mining property.

Twenty sections of land in T24N, R5E, are administered by the Bureau of Land Management. This area is apparently highly mineralized and significant past disturbance of the surface resources has occurred. Approximately 5,000 acres of the BLM land remains roadless as defined by the criteria displayed in RARE II.



Suitability - It is felt that the added areas in the Warren vicinity are unsuitable for wilderness. They generally meet only the broadest criteria. Man has been actively exploiting the mineral values for over 100 years, and the face of the land bears the scars. Small areas still exist that are nearly pristine, but they are not extensive.

The lands in the Kelly-Bullion Unit are considered suitable. While some disturbance of the natural condition has occurred, it is still at tolerable levels and does not adversely affect extensive areas.

Need - The discussion of need displayed in Alternative A remains applicable. However, because of the apparent low quality (in terms of wilderness) of the Warren area lands, a real need for extensive acreage would have to exist to justify that addition. The situation is little different in Kelly-Bullion. Only if the objective is for a maximum acreage should that area be included. The predominance of wilderness values is contained in Alternatives C and D. Alternative E adds little but acres.

Availability - See Alternative A.

Manageability - The boundary in the Warren vicinity would be difficult to define. Private land inholdings, mining claims, and the numerous low standard roads would pose management problems. Past disturbance would render attempts at natural condition management almost hopeless. Management could be done, but restoration of any semblance to a quality wilderness environment would require a very long period of time.

The Kelly-Bullion area presents a different problem. The breaks are essentially undisturbed except for some mining and road activities near Bullion Creek and other minor discords. The breaks themselves do not form a manageable unit however. The potential for natural fire management would be nearly zero. The breaks are inaccessible except at the bottom and the top. Cross-country travel across the breaks is very difficult, and only a small portion of the area is tapped by trail. Along most of the river frontage, the road is across the river from the area, thus even the bottom is difficult to reach. Persons seeking a challenge should certainly appreciate the area, as challenges abound.

The higher area near Florence is more manageable, but opportunities for definable boundaries are limited. It is felt the boundary location shown in Alternatives A, C, and D are superior to one nearer the Grangeville-Salmon Road.

"Relationship of Gospel-Hump Roadless Area to Existing and Proposed Wilderness, Wilderness Study Areas, and Non-Selected Roadless Areas"

The extremely large, lightly developed core of Central Idaho is unique in the contiguous 48 states. No other area has such an expanse of undeveloped country. The following table displays the core area.

Formally Classified

| | |
|--------------------------------------|------------------|
| Selway-Bitterroot Wilderness | 1,240,600 acres |
| Idaho Primitive Area - Salmon River | |
| Breaks Primitive Area (Max.Proposal) | 2,300,000 " |
| | <u>3,540,600</u> |

RARE II

| | |
|------------------------|----------------|
| Meadow Creek #1-845 | 310,300 |
| Rackliff-Gedney #1-841 | 53,300 |
| Middle Bargamin #1-846 | 12,800 |
| Mallard Creek #1-847 | 23,100 |
| Gospel-Hump #1-921 | 504,000* |
| | <u>903,500</u> |

Total - 4,444,100 Acres

This total unit does not represent a contiguous unit, however, as the Magruder Corridor approximately bisects the area. (The Magruder Corridor contains a low standard road that connects Elk City, Idaho, and Darby, Montana.) There are several additional roads that penetrate the area, but do not split it.



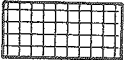
*As indicated in an earlier section, the boundaries for RARE II #1-921 and the Gospel-Hump Roadless Area in this plan do not share a common boundary, hence the acreage difference.

As a comparison, six classified Wilderness Areas have acreages that exceed 500,000 acres (4). These are:

| | |
|--|-----------|
| Selway-Bitterroot (Idaho & Montana) | 1,240,618 |
| Boundary Waters Canoe Area (Minnesota) | 747,840 |
| Washakie (Wyoming) | 686,584 |
| Teton (Wyoming) | 557,584 |
| Bob Marshall (Montana) | 950,000 |
| Pasayten (Washington) | 505,524 |

Insofar as features contained in the Gospel-Hump as compared to the other areas, access appears to be the major difference. The Idaho Primitive Area-Salmon River Breaks Primitive Area are very similar in types of terrain, vegetation, water features, wildlife, and others. Both straddle the main Salmon River, only a few miles apart. Both areas contain zones of mineralization that led to exploitation and settlement prior to the 1900's.

**Gospel-Hump
Vicinity Map**

-  NEZPERCE FOREST
Roadless Areas
-  Wilderness Areas
-  Primitive Areas

Scale of miles



Spokane

195

Washington
Idaho

Montana
Idaho

Missoula

N

Clearwater

Orofino

Lewiston

Grangeville

95

12

Locha River

Selway Bitterroot
Wilderness

14

Clearwater R.

GOSPEL-
HUMP

Riggins

95

Mc Call

S. Fk Salmon R.

Idaho Primitive Area

W. Fk Salmon River

Oregon
Idaho

The biggest difference in the two is the access situation. Visitors from as far away as Boise and Spokane can penetrate the heart of the Gospel-Hump on a weekend trip, but only visit the fringes of the Idaho Primitive Area. It is felt this ease of access, coupled with widespread publicity may quickly cause areas of the Gospel-Hump to become overused under current management levels regardless of allocations that might result from the unit plan. One value that the Gospel-Hump unit might offer the National Wilderness Preservation System is that of an alternative for many people who want to visit backcountry, high mountain lakes, or other attractive features, but are not seeking true "wilderness" experience. This could reduce future use pressures on classified areas of Central Idaho.

A documented need exists for this type of unit, where backcountry dispersed recreation is emphasized and management techniques aimed at increasing visitor capacity (5). Many persons feel some of the same techniques could be used in classified Wilderness if it were not for the "purist" posture maintained by the Forest Service concerning Wilderness management, and that the purity is actually a form of "passive aggressive" resistance to discourage wilderness use and classification of additional areas (6)(7).

However, the Forest Service management posture has evolved over many years, and seems well suited for maintaining a high quality National Wilderness Preservation System so long as an adequate spectrum of alternative recreational opportunities remain available (8). Otherwise, we will be guilty of the "elitism" of which we have been accused (9).

Conclusion

The evaluation of the wilderness character of the Gospel-Hump revealed that portions of the area possess "exemplary" values for wilderness consideration. It is beyond the intent of this report to make specific recommendations, but alternatives were formulated for use in the Environmental Impact Statement for comparison with other resources. Further, the relationship of Gospel-Hump with other Central Idaho roadless areas was displayed for consideration.

References Cited

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2. Forest Service USDA 19___. Recreation Opportunity Inventory and Evaluation.
3. Lucas, Robert C. 1974. Forest Service Wilderness Research in the Rockies, U.S. Government Printing Office, RWU-1903 Pub.#27. 8p.
4. McCurdy, Dwight R. 1977. An Overview of the National Wilderness Preservation System. Journal of Forestry, pp.260,261.
5. Stankey, George H., Robert C. Lucas, and David W. Lime. 1974. Patterns of Wilderness Use as Related to Congestion and Solitude. Presented to 1974 Annual Meeting of Association of American Geographers, Seattle, Washington. 17p.
6. Church, F. 1972. Public Lands Subcommittee Testimony, Washington, D.C. May 5.
7. Trueblood, Ted. 1975. The Forest Service versus the Wilderness Act. Field and Stream, Sept. 1975. pp.__, __.
8. Costley, R. 1972. An Enduring Resource. American Forests, 78(6):8-11, 54-56.
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Roadless Area Evaluation

Dixie Summit - Nut Hill

The Dixie Summit-Nut Hill Roadless Area is located approximately 40 airline miles east of Grangeville, Idaho, and ten miles south of Elk City (see Vicinity map on following page). As identified during the inventory for RARE II, the unit contains 26,700 acres.

The area is generally well vegetated with coniferous timber in the grand fir series. Extensive stands of lodgepole pine also occur. There are several large meadows in the vicinity of Moose Meadows and Vetter Creeks. Terrain diversity is generally low, and the unit is typified by rolling, rounded landforms. There are no geologic features of significance or any lakes. Major streams draining the area include Big Creek and Crooked Creek in the Salmon River watershed and the headwaters of Red River in the Clearwater River drainage.

The area is bounded on the west by the Big Creek Road, which separates the area from the Gospel-Hump Roadless Area. The northern part is bounded by the Elk City Planning Unit, which has a completed land management plan and final environmental impact statement. The Red River Planning Unit and developed areas near Dixie bound the area on the east and south. A portion of the headwaters of Red River were allocated to roadless management by the Red River Land Management Plan and are being included in this evaluation of wilderness characteristics.

Because the area lacks attractive features, recreational use of the unit is light with an estimated use of less than 700 recreation visitor days. Most of this occurs during the fall big game hunting season. Snowmobiling is a rapidly growing form of recreation in the vicinity, but most use is associated with developed areas and roads.

The West, Middle, and South Forks of Red River provide spawning habitat for anadromous fish. Most other streams in the unit contain resident fisheries.

Although the area is generally above 6,000 feet MSL, timber volumes in the grand fir series average 20 MBF per acre, and it is estimated that a gross standing volume of 87 MMBF is present. Most of the timber volume has been contributing to the potential yield of the Nezperce National Forest, and is generally stratified as Standard or Marginal.

A Research Natural Area has been proposed for the meadow ecosystems of Moose Meadow Creek. Livestock grazing is light in the roadless area, with approximately 200 AUM's of cattle grazing annually.

Wildlife populations include elk, moose, and whitetail deer, and a host of smaller animals and birds.

Extensive mining activity has occurred near the fringes of the unit, particularly near Penman Hill and the town of Dixie. A number of claims are also present within the unit, but no estimate is available of the total number. There is no current production of minerals.

Evaluation - Evaluation techniques were identical to those portrayed in the Gospel-Hump Roadless Area and included the Recreation Opportunity Inventory and the Slusher System of wilderness evaluation. The evaluation was conducted concurrently with the Gospel-Hump to provide uniformity.

Ratings - The following maps and tables display the REU evaluations:

| <u>REU</u> | <u>Nat. Cond.</u> | <u>Soli- tude</u> | <u>Eco logic</u> | <u>Rec.</u> | <u>Geo- logic</u> | <u>Scenic</u> | <u>Educ.& Scient.</u> | <u>Total</u> |
|------------|-----------------------|-----------------------|----------------------|-------------|-----------------------|---------------|-------------------------------|--------------|
| 64 | 13 | 5 | 9 | 2 | 2 | 2 | 7 | 40 |
| 65 | 8 | 5 | 7 | 3 | 2 | 1 | 7 | 33 |
| 66 | 19 | 9 | 13 | 4 | 3 | 4 | 7 | 59 |
| 69 | 19 | 9 | 13 | 4 | 1 | 2 | 7 | 55 |
| 72 | 19 | 8 | 12 | 4 | 2 | 2 | 7 | 54 |
| 73 | 26 | 15 | 17 | 4 | 2 | 2 | 7 | 73 |
| 74 | 26 | 17 | 17 | 4 | 1 | 4 | 7 | 76 |
| 80 | 15 | 14 | 10 | 3 | 5 | 4 | 7 | 58 |
| 81 | 13 | 14 | 8 | 2 | 3 | 2 | 7 | 49 |
| 82 | 13 | 14 | 8 | 2 | 3 | 2 | 7 | 49 |
| 83 | 13 | 10 | 8 | 2 | 3 | 2 | 7 | 45 |
| 84 | 13 | 12 | 8 | 2 | 3 | 2 | 7 | 47 |
| 85 | 19 | 8 | 10 | 2 | 3 | 2 | 7 | 51 |
| RR | 26 | 17 | 17 | 4 | 2 | 4 | 7 | 77 |

Ave. Value = 54.7

Alternatives

Only two boundary locations were examined as alternatives because there appeared to be no advantage to other possible locations.

Alternative 1 18,000 Acres

Alternative 1 deletes the roadless portions of REU's 64, 65, and 66. This raises the average Slusher value from 61.7 to 65.7, which possibly isn't meaningful by itself due to the subjectivity of the rating system. Elimination of the area near Dixie does have the effect of improving opportunity for solitude. The remainder of the unit was rated at an average value of 12.5 for solitude, while the average value in the deleted units was only 6.3.

Suitability - The area is suitable for allocation to Wilderness Study in that it meets the criteria for roadless areas as defined in RARE II. While it has few attractive features and is relatively small, it does contain natural features worthy of preservation such as the proposed Research Natural Area and the high value watersheds. This does not suggest, however, that wilderness classification is necessary to accomplish that goal or that other resource allocations might not provide greater benefits.

Availability - As with the Gospel-Hump Roadless Area, availability will be displayed in the environmental statement.

Need - The Dixie Summit-Nut Hill Roadless Area has prompted little public interest in the past so far as need for wilderness goes. However, this is the first time that the issue has been brought forth as an allocation question.

As indicated in the evaluation of the Gospel-Hump Roadless Area, there is a basic conflict between needs and desires at the local level as compared to the regional and national level. The large acreage of wilderness, primitive, and roadless areas in the immediate vicinity is viewed as a threat to local economic stability by many persons.

At the local level, the Dixie Summit-Nut Hill unit probably offers less potential value to the National Wilderness Preservation System than a number of other roadless areas on the Nezperce Forest would. It is a small, relatively narrow unit, while many areas offer much greater size. Habitat diversity is low, and there are few notable ecologic features when compared to other units. Natural condition over much of the area has been influenced by man, and the opportunities for solitude are lower than on numerous other units. (However, opportunity for solitude would remain relatively stable since there are few attractive features that would cause an increase of use.)

It is entirely possible that an area like Dixie Summit-Nut Hill would offer very high values if it were in some other areas of the United States. But in the west, and particularly Central Idaho, it does not rank well with other units for wilderness quality.

Manageability - The small size of the unit, coupled with proximity to developed areas would make management for natural condition and solitude difficult. Natural processes such as wildfire would probably not be allowed to function normally because of danger to developed areas. The boundary along the west side would have to be a road, or possibly some arbitrary setback from the road. In either case, it would not be a desirable boundary for wilderness. More manageable boundaries could be selected on the remainder of the unit.

Alternative 2 - Total Area 26,660 Acres

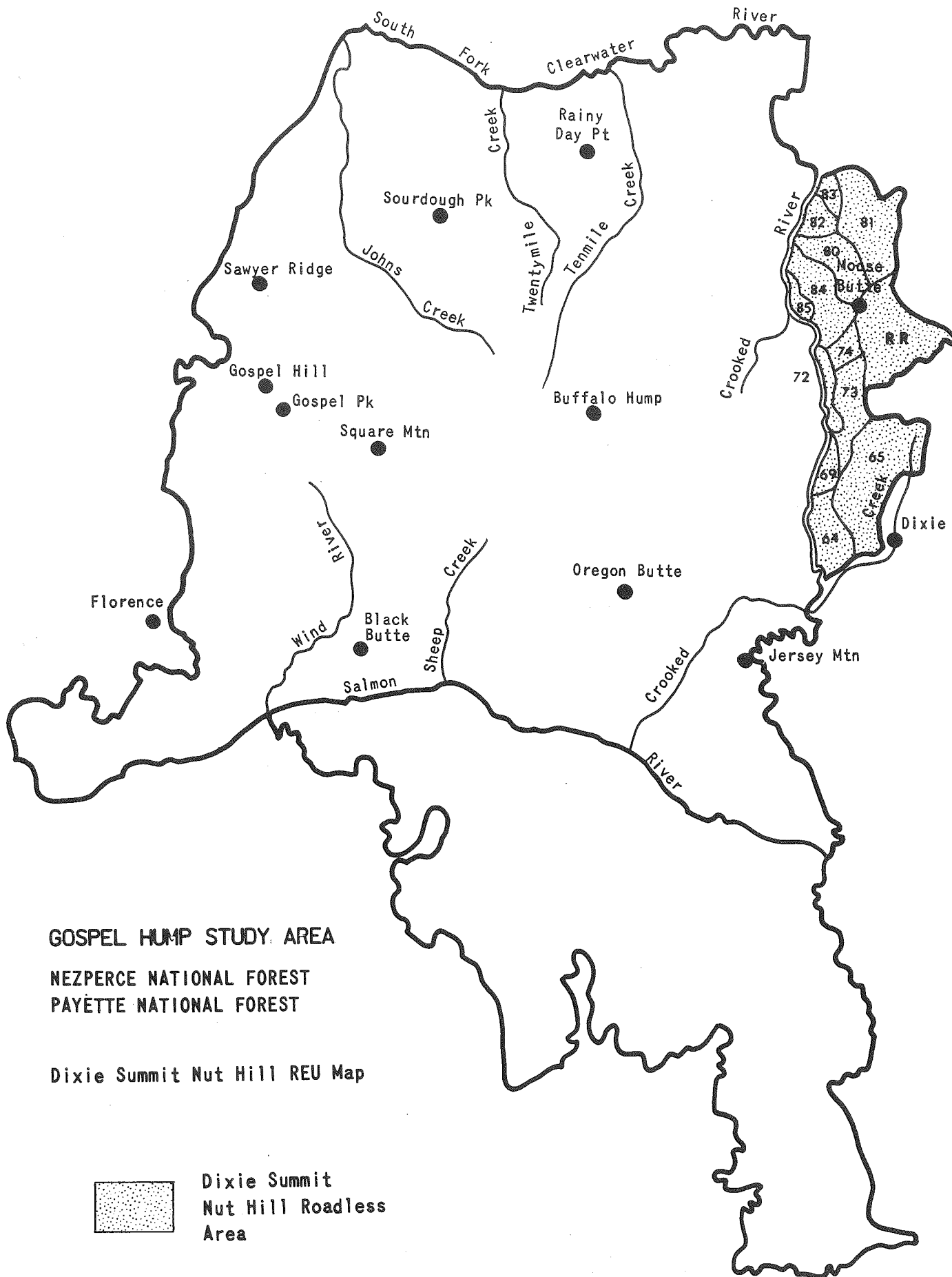
The addition of REU's 64, 65, and 66 increase the probability of conflict with mineral values, as the streams draining towards Dixie produced significant amounts of placer gold in the past. The area shows abundant evidence of past mining activity. The area is typified by low-producing lodgepole on west-facing slopes and fairly productive stands of grand fir on the more moist east slopes.

Suitability - The added area meets the criteria for wilderness classification.

Availability - See Alternative 1.

Need - See Alternative 1. This addition is basically of acres only, and adds little that would increase its value to the National Wilderness Preservation System.

Manageability - Management problems would be increased in the vicinity of Dixie. The roadless area boundary there essentially follows areas of development as shown on the map, and would be very difficult to establish on the ground. The presence of mineralization would increase difficulty of administration due to desire to prospect and/or operate mining claims. The remaining area would offer no problems not mentioned in Alternative 1.



GOSPEL HUMP STUDY AREA

NEZPERCE NATIONAL FOREST

PAYETTE NATIONAL FOREST

Dixie Summit Nut Hill REU Map



Dixie Summit
Nut Hill Roadless
Area

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
FORESTRY SCIENCES LABORATORY
1221 SOUTH MAIN STREET

MOSCOW, IDAHO 83843

APPENDIX 13

4100

August 29, 1977

Mr. Donald L. Biddison, Forest Supervisor
Nezperce National Forest
319 E. Main Street
Grangeville, Idaho 83530



RECEIVED
NEZ. N.F.

AUG 31 1977

Attention: Chuck Nelson

Dear Don:

In reply to Chuck Nelson's telephone call of 8/26/77,
I am enclosing a sketch showing the area on Moose Meadows
Creek that we recommend be established as a research
natural area.

Following is a listing of areas within the Gospel-Hump
unit that are possibilities for RNA's but need further
examination to determine their suitability:

FS _____
AO _____
FENG ✓ _____
RECORDED _____
FILE _____
ENC. _____
M. E. POOL _____
ADVIS. SEC. _____
B & S _____
PERS. MGT. _____
RESC _____
COPY TO: _____

Areas

Comments

Square Mountain Creek

The basin at the head of Square Mountain Creek includes a number of aquatic and terrestrial situations and an unnamed Douglasia on Square Mountain. Because of some recreational and grazing use, we want to examine alternative possibilities before reaching a recommendation on this area.

Twin Lakes

This area is a possible alternative to Square Mountain Creek.

Wiseboy Lakes and side of Buffalo Hump draining into these lakes.

This area includes a bit of alpine country and subalpine lakes, and terrestrial types. Present and future recreational use may make the area unsuitable for a RNA.

Nelson

Hurst Lake

Recommended by Al Espinosa

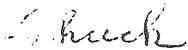
Shining Lake

Recommended by Al Espinosa

Sheep Creek

We would like to find an area or areas in the Sheep Creek drainage that would include a number of needed grassland, shrubland, and forest (especially ponderosa pine and Douglas-fir) habitat types, and accompanying stream systems.

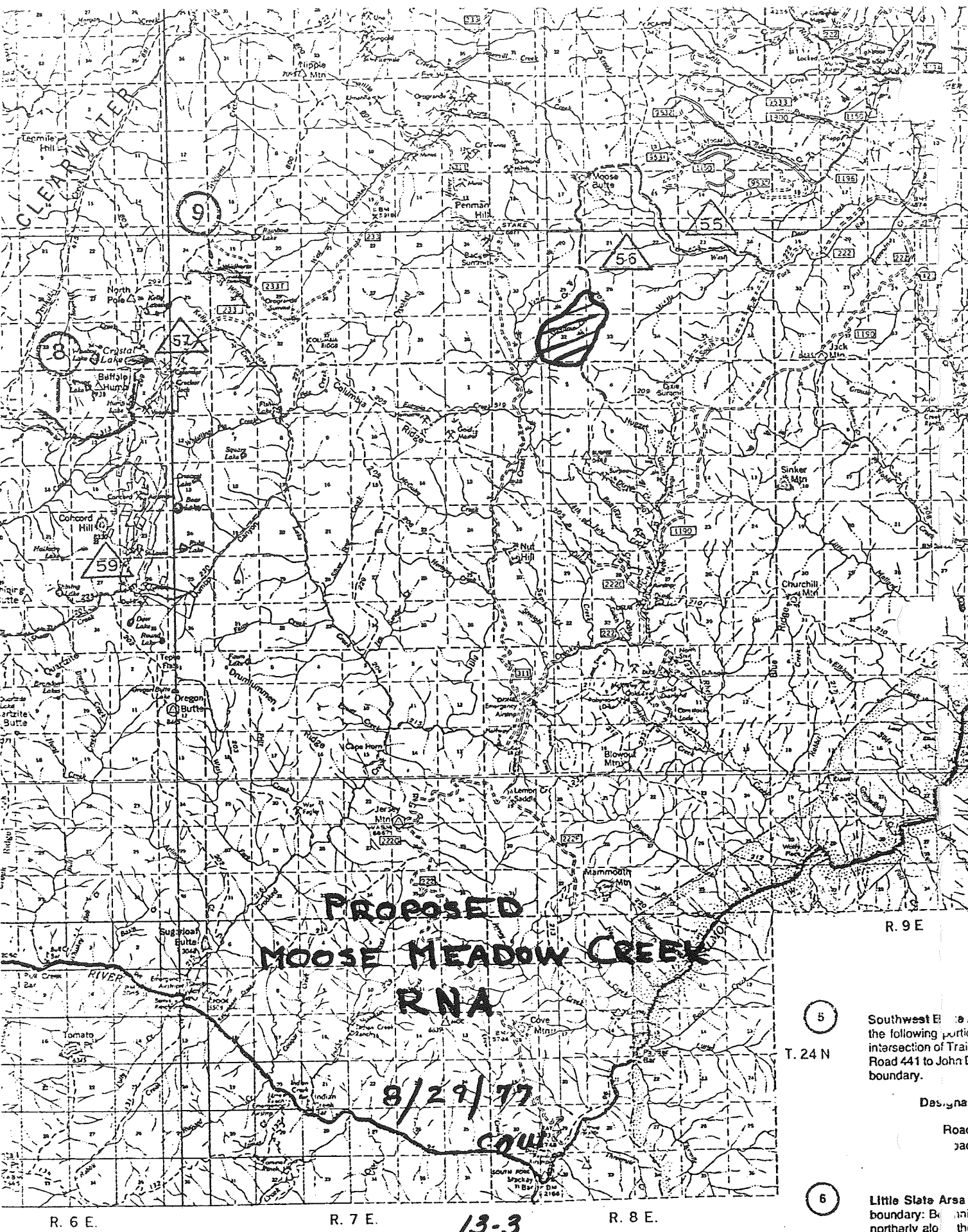
Sincerely,



CHARLES A. WELLNER, Chairman
Idaho Natural Areas Coordinating Committee

cc: Pfister
Chairmen Technical Committees (6)

Enclosure



Southwest El Paso /
the following portion
intersection of Trail
Road 441 to John D
boundary.

Designat
Road
pad

Little Slate Area -
boundary: Beginning
northerly along the
Creek in the N. 1/4,
the tributary of Little
Little Slate Creek to

ALL VEHICLES (EXCEPT OVER-SNOW VEHICLES OPERATING ON SNOW)
RESTRICTED TO DESIGNATED ROUTES YEARLONG

APPENDIX 14

Analysis of Alternatives

Once the fixed acreage and boundary of each Wilderness Study alternative was established, further analysis of the alternatives themselves had to be conducted. These alternatives were analyzed in terms of the values of the wilderness resource as opposed to the values of all resources other than wilderness.

Analysis Units - The Study Area with its various alternative boundaries then was divided into units for analysis. The boundaries of these smaller analysis units were determined primarily by combining landtype associations with watershed units. This information was provided through the Land Systems Inventory. This method of defining analysis units provides a relatively homogenous unit in terms of response prediction to various land management activities. Because soils, topography, hydrology, and other natural characteristics are similar throughout the analysis unit, the effects of any action could be predicted throughout the analysis unit. As an example, a few test sites within an analysis unit might show that a certain amount of natural sediment was produced. Because all the land within the analysis unit is reasonably similar, the sample data collected from those test sites would be applicable for estimating the amount of natural erosion for the entire unit. (These "analysis units" have the same boundaries as the "management units" referred to in Part Two, The Land Management Plan, of this publication.) In addition to landtype association and watershed, the analysis unit boundaries were also made conterminous with Planning Unit boundaries. This constraint allowed analysis of wilderness and other resource values for both the Study Area and the Planning Unit.

Fifty-eight analysis units were created within the entire Study Area. However, the analysis unit boundaries south of the Salmon River were based on provinces and the proposed Wild & Scenic River corridor rather than landtype and watershed. (More detailed explanation of the procedure south of the Salmon River may be found in the Warren Unit Management Plan, Payette National Forest). The analysis results for all 58 analysis units were comparable.

Rather than attempting to describe all the analysis units in detail, the following table (Table 1) will summarize the pertinent information. The reader may refer to Appendix 3, The Land System Inventory, for more detailed information concerning conditions in the Study Area and individual mapping units. Several analysis units may be included within one mapping unit.

TABLE 1
Analysis Unit I Identification Data

| Analysis Unit Identification Code | Net Acres | 1/ Land System Inventory Mapping Unit | Watershed |
|--------------------------------------|-----------|---|-----------------------|
| 1 | 5750 | 60 | South Fork Clearwater |
| 2 | 2580 | 60 | South Fork Clearwater |
| 3 | 6010 | 60 | Tenmile Creek |
| 4A | 3931 | 60 | Crooked River |
| 4B | 1842 | 60 | Crooked River |
| 5 | 15,938 | 30 | Crooked River |
| 6 | 2870 | 30 | Tenmile Creek |
| 7 | 4710 | 30 | Tenmile Creek |
| 8A | 12,965 | 30 | Twentymile Creek |
| 8B | 2900 | 33 | Twentymile Creek |
| 9 | 5760 | 30 | South Fork Clearwater |
| 10 | 2935 | 60 | Johns Creek |
| 11 | 8277 | 31 | Johns Creek |
| 12 | 4065 | 60 | Johns Creek |
| 13 | 2400 | 20 | Johns Creek |
| 14A | 11,490 | 45 | Johns Creek |
| 14B | 23,225 | 65 | Johns Creek |
| 15 | 5645 | 60 | Johns Creek |
| 16 | 985 | 33 | Johns Creek |
| 17 | 8255 | 33 | Johns Creek |
| 18 | 9505 | 65 | Tenmile Creek |
| 19A | 2225 | 45A | Tenmile Creek |
| 19B | 2345 | 45A | Tenmile Creek |
| 20 | 3070 | 33 | Tenmile Creek |
| 21 | 3125 | 33 | Crooked River |
| 22 | 2140 | 40 | Crooked River |
| 23 | 6805 | 33 | Crooked River |
| 24 | 1595 | 60 | Crooked River |
| 25A | 5285 | 33 | Crooked River |
| 25B | 3745 | 22 | Crooked Creek |
| 25C | 8945 | 33 | Crooked Creek |
| 26A | 4280 | 30 | Crooked River |
| 26B | 1875 | 30 | Crooked River |
| 26C | 205 | 30 | Crooked River |
| 27 | 5325 | 30 | Red River |
| 28 | 2590 | 30 | Crooked Creek |
| 29 | 16,145 | 33 | Crooked Creek |
| 30 | 5580 | 65 | Crooked Creek |
| 31 | 2485 | 40 | Crooked Creek |
| 32 | 14,735 | 45A | Crooked Creek |
| 33 | 2035 | 40 | Tenmile Creek |
| 34 | 26,195 | 45A | Sheep Creek |
| 35 | 8750 | 40 | Johns Creek |
| 36A | 11,655 | 45A | Slate Creek |
| 36B | 17,715 | 45A | Wind River |
| 37 | 4415 | 65 | Slate Creek |
| 38 | 6235 | 22 | Wind River |
| 39A | 24,545 | 61 | Salmon River |
| 39B | 3855 | 61 | Wind River |
| 40 | 6360 | 61 | Salmon River |
| 41 | 8575 | 61 | Sheep Creek |
| 42 | 19,490 | 61 | Salmon River |
| 43 | 23,475 | 61 | Crooked Creek |
| 44 | 15,835 | 61 | Salmon River |

1/ Gross acreage minus private land 14-2

Computer Model Development - Once the analysis units were defined, the Core Team met to determine which management activities were most appropriate for each individual analysis unit. Each unit was assigned a specific set of management activities. The list of management activities evaluated is shown in this Appendix. Forest Service Manual 8226.42 requires the analysis of four specific criteria in the allocation of lands to resource uses. These four are:

1. Natural Capability - An evaluation of inherent or natural ability to produce resources, without additional management investment.
2. Managed Suitability - An assumption of potential productivity if specific management alterations are made to overcome constraints and limiting factors affecting man's ability to institute and sustain a land use.
3. Use Feasibility - A reflection of man's ability and desire to use the land considering off-site factors such as transportation system investments, fluctuating resource values, and socio-economic conditions.
4. Land Use Compatability - The relative degree to which one land use conflicts with another.

Suitability and feasibility were determined by the interdisciplinary Core Team in assigning a set of activities to be evaluated for each analysis unit. It was the task of the Peripheral Team to evaluate the capability and compatibility by rating the management activities in terms of the resource output or production for every analysis unit. Both the management activities and the products to be considered were determined in response to previously described public issues, resource output targets and management concerns.

The computer, then, was programmed to display the relationships between the figures in each matrix and between the matrices themselves. These relationships were analyzed in terms of optimization of particular management activities. For example, if the computer was programmed to optimize dispersed recreation, it would provide figures on how optimization of that activity would affect production for all resources, for all analysis units. This optimization analysis was done for many management activities listed by the Core Team. Over one hundred such analyses were run.

Therefore, the seven alternatives were mathematically analyzed in terms of the various management options. Three other separate but integrated analyses were carried out to fully develop the effects of these possible future uses. These were: (1) a financial analysis to determine the economic efficiency of each alternative, (2) an input-output analysis to

examine the economic equity of each alternative, and (3) a social impact assessment to determine the effects on the community of each alternative. This data then became one of the considerations for recommending a wilderness study area by comparing the values for wilderness with the other resource values present.

Analysis of Alternatives - The amounts of wilderness study contained in Alternative A, B, C, D, E, E-2 and F became "givens," or fixed acreages for analysis. Alternatives were run in groups to measure the products and costs of varying management activities in areas outside the Wilderness Study Area. Management options were analyzed at this point in order to determine which wilderness alternatives could produce the largest area of high quality wilderness study with the least economic cost in terms of the production of other resources. Furthermore, this evaluation of wilderness quality must include consideration of suitability, manageability, need and availability. The first three were addressed in the analysis of wilderness values alone (Appendix 12, Wilderness Evaluation). The fourth, availability, was measured in relation to other resources or resource opportunities foregone.

As an example of the analyses made for each alternative, under Wilderness Study Alternative "A", two were made -- A-1 and A-2. In one, timber production was maximized, while sediment was constrained at 150% of natural. In the second run, everything was the same, except that aerial logging was required for all harvest to the extent possible.

With each wilderness study alternative, numerous runs were made to learn the results of varying management strategies. The results of only 13 of these analyses are displayed in the Environmental Impact Statement (Figures 9-12). These 13 analyses adequately portray the options available and the trade-offs involved with varying wilderness areas. However, all analyses are available for public review at the headquarters of the Nezperce National Forest in Grangeville, Idaho.

APPENDIX 14

MANAGEMENT ACTIVITIES USED IN MATRICES FOR EVALUATION OF ALTERNATIVES

ACTIVITY DEFINITIONS

Current Management - The present on-going management activities in the unit.

Activity No.

- 1 Wilderness Study - Wilderness study is designation of the analysis unit or portion of the unit for recommendation to be studied for wilderness.
- 2 Trail Construction - Trails are constructed with 24" tread and have immediate impact on .75 acres per mile.
- 3 Aerial Logging - This system uses helicopters or helium filled balloons to lift logs completely off the ground and bring them into the landing. Skid distance is up to one mile horizontally and 1000 ft. vertically.
- 4 Conventional Logging - The pull of the skidding line parallels the ground. Tractors, high leads, etc. are used for skidding; skid distance is up to 600'.
- 5 Skyline Logging - Two high points with cable between are used to fly logs with at least front end off the ground. Skid distance is 1000 to 1500'.
- 6 Developed Recreation - Developed recreation is the use of constructed sites and facilities for recreation. Management for developed recreation would stress improvement and enlargement of existing sites and development of potential sites.
- 7 Non-vehicular Dispersed Recreation - Stresses use for hiking, horseback riding, hunting, fishing, and camping. Constrains road building, emphasizes trails and trailheads.
- 8 Vehicular Dispersed Recreation - Emphasizes ORV facilities for for motorbikes, 4-wheel drives and snowmobiles. Low standard roads, trails, and minimum camp facilities for sanitation.
- 9 Road stabilization - The repair of unstable roads. Goal is sediment reduction (where there are existing roads).
- 10 Road Surfacing - Construction of asphalt concrete paving on existing roads. Goal is sediment reduction.

- 11 Fish Stocking - Placement of game fish in lakes and streams.
- 12 Big Game Manipulation - Planned management of environmental factor to create favorable big game habitat. (Primarily through timber harvest and fuels management.)
- 13 Road Construction - Road construction is calculated at an average width of 12' and will impact 8 acres per mile.
- 14 Domestic Grazing - The use of rangelands for grazing by domestic livestock.
- 15 Mining - Provides for access to and extraction of ores.
- 16 Fish Barrier Removal - Removal of fish barriers to allow anadromous fish spawning access to higher elevation streams.
- 17 Research Natural Area - Protecting natural condition of unit or portion thereof for scientific study.

Slash Disposal, Site Preparation, Regeneration - Considered as part of the timber harvest and will be added as a separate activity where needs will occur prior to timber harvest.

| <u>Product</u> | <u>Explanation & Units of Measure</u> |
|-----------------------------------|---|
| Water Yield | The runoff from the analysis units transported by the stream system. The unit of measure is thousand (M) acre feet per year. |
| Deer-Elk Winter Range | The area that provides winter habitat for deer and elk. The unit of measure is million pounds of available forage per year on that area. |
| Deer-Elk Summer Range | The area that provides summer habitat for deer and elk. The measure is million pounds of forage available per year on that area. |
| Domestic Live-stock Grazing | The amount of forage available to be grazed by domestic livestock. An AUM is the amount of forage required to feed one 1,000-lb. cow (or equivalent) for one month. |
| Big Game Management-Timber Bd.Ft. | Areas of commercial timber managed for wildlife habitat. These areas will have timber cover removed through commercial harvest and broadcast burned to stimulate growth of forage plants. Timber stratification will be unregulated. Areas will not be managed in future for timber, but for wildlife. Unit of measure is thousand board feet harvested in the one-time harvest. This is not an annual harvest and, as such, is not additive to other timber yields. The major product is increased forage. |
| Timber Harvest | Timber planned for harvest on a yearly basis. Unit of measure is thousand board feet (MBF). The harvest available is calculated by multiplying the mean annual increment (growth per year) times the acres available for harvest by all systems within a unit. |
| AL | That portion of the total harvest that will be harvested by aerial means (helicopter or balloon), whereby logs are carried to the landing completely off the ground. Unit of measure is total acres allocated on the Nezperce portion of the Gospel-Hump roadless area. |
| SL | Skyline logging, or yarding by means of suspended cable system whereby at least one end of the log is raised off the ground. Unit of measure is total acres allocated on the Nezperce portion of the Gospel-Hump Study Area. |

| | |
|----------------------|---|
| CL | Conventional logging, or yarding by means of tractor or rubber-tired skidder. Jammer logging systems may occasionally be used to yard from existing roads or those small areas within units that are too steep for tractor logging. Unit of measure is total acres allocated on the Nezperce portion of the Gospel-Hump Study Area. |
| Road Construction | Roads constructed for timber harvest, measured in miles, on an annual basis. It was estimated that an average of five miles of road per square mile of harvest area is necessary for conventional logging, 3.5 miles for skyline, and 2.0 miles for aerial. These figures did not include major land access roads which are entered as individual projects, and added to the above figures. |
| Existing Roads | Miles of road in existence at end of the planning period (year 2000). This is the total of today's roads plus roads built annually over a 20 year period. |
| Wilderness Study | Acres allocated to receive formal study to determine whether or not wilderness classification should be recommended. |
| Marten Habitat | Acres of suitable habitat for the pine marten and associated communities. |
| Dispersed Recreation | - Recreation not dependent on developed campgrounds. Includes hiking, driving for pleasure, hunting, fishing, etc. Measured in visitor days which is the equivalent of one person for 12 hours. |
| Developed Recreation | - Recreation dependent on developed facilities such as campgrounds, picnic areas, etc. Measured in visitor days. |
| Net Present Worth | The value in terms of today's dollars of investments made throughout the planning period. Only costs and revenues associated with timber harvest and grazing are compared. |

| | |
|-------------------------------------|--|
| Total Sediment Production <u>2/</u> | The total amount of sediment produced from the Study Area, measured in cubic yards of sediment. |
| Crooked River | Amount of sediment produced by Crooked River. |
| 10-Mile | Cumulative figure, includes the amount of sediment from 10-Mile Creek plus that from Crooked River. |
| 20-Mile | Cumulative sediment total, Crooked River plus 10-Mile plus 20-Mile Creek. |
| Johns Creek | The cumulative sediment total of the three above streams plus Johns Creek. This reflects total sediment contribution to the South Fork Clearwater River from the Study Area. |
| Salmon River Sediment | Amount of sediment added to Salmon River by drainages within the contiguous roadless area on the Nezperce Forest. |
| Crooked Creek | Amount of sediment added to Salmon River by Crooked Creek. |
| Sheep Creek | Cumulative total sediment produced by Crooked Creek and Sheep Creek. |
| Wind River | Cumulative total produced by Crooked Creek plus Sheep Creek plus Wind River. |
| Payette | Total sediment contribution to Salmon River from Warren Planning Unit streams. |

2/ During the planning effort, one fact that quickly became obvious was that sediment production would impose a major constraint on timber harvest. A direct trade-off was involved between sediment production and anadromous fish habitat. The Evaluation Criteria chosen by the Core Team predicated that no plan would be chosen that increased sediment beyond 150%. Thus, most of the alternative runs were constrained to that sediment figure to obtain timber production figures. The constraint was applied to individual drainages, however, and not the total sediment production. This kept the total below 150% except for the few runs in which sediment was unconstrained.

The two sets of information for each analysis unit were structured in the form of a matrix. Each management activity was evaluated for its effect on production. The following matrix, shown only as an example, would have been put together for one analysis unit. (Every unit had its own sets of factors to be considered on each axis of the matrix.) The actual matrix for Analysis Unit 21 is included as a sample, while the remaining matrices are on file at the Forest Supervisor's office in Grangeville.

| Sample Analysis Unit Matrix (X) | <u>Management Activities</u> | | | | | |
|---------------------------------------|------------------------------|---------------------|-------------------------|-------------------|-----------------------------|--|
| | Current Management | Wilderness Study | Conventional Logging | Aerial Logging | Non-Vehicular Recreation | |
| PRODUCTS | | | | | | |
| Sediment | .005 | .005 | .07 | | | |
| Timber | 0 | | 149 | | | |
| Grazing | .5 | .5 | .7 | | | |
| Elk Winter Range | 50 | 50 | 70 | | | |
| Road Construction | 0 | 0 | .0004 | | | |

The above sample displays the method by which the data for each analysis unit was analyzed. All values are entered on a one acre per year basis. As an example of its use, suppose the Core Team wanted to know the effects of conventional logging on analysis unit "X". The soil scientist calculated that sediment would be produced at a rate of 0.07 cubic yards/acre/year. Over a 100-year rotation, an average of 149 board feet of timber per year would be produced (or a one time cut of 14,900 board feet). The range specialist indicated .7 animal unit months of forage would be produced per acre annually. The wildlife biologist predicted elk forage would be produced at the rate of 70 lbs. per acre. To harvest the timber,

the engineer estimated it would require .0004 ^{2/} miles of road per acre, etc. Furthermore, the capability of a site to produce timber was shown as the average annual growth of trees on that unit. The analysis of compatibility was demonstrated by a slash at the intersection of timber harvest and wilderness study, indicating that the two are mutually exclusive.

The Peripheral Team members filled in the matrices for all analysis units. Their estimates of the production figures for all of the varied management activities came from their direct experience in the field and their knowledge of the most up-to-date information within their specialty area.

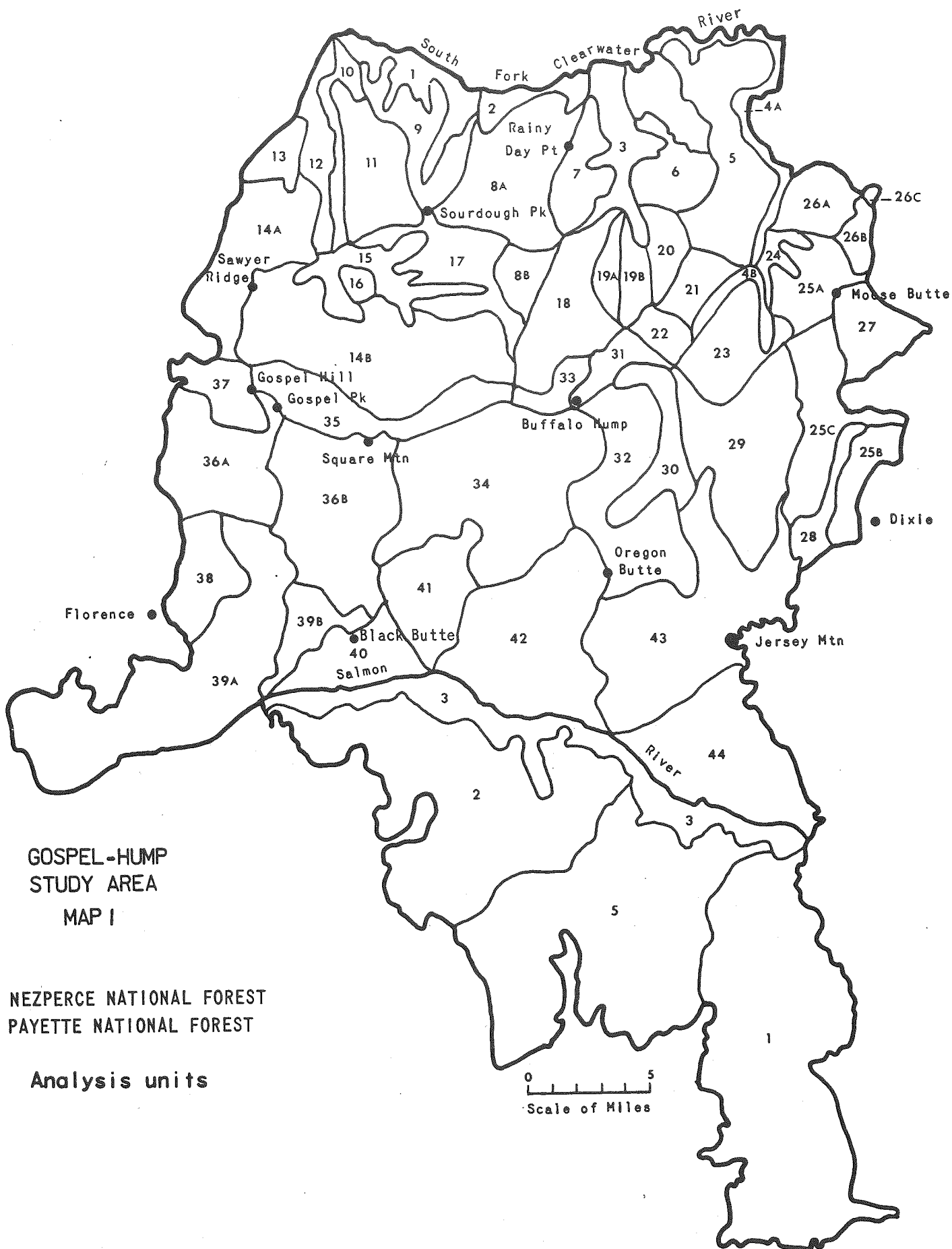
^{2/} The average mileage for conventional logging on the Nezperce Forest is estimated at 5 miles per 640 acres, or .0078 miles per acre. In this planning process, it was assumed that all necessary roads would be constructed in the first 20-year period. The average annual miles of road constructed then equals $.0078 \div \text{by } 20$, or .00039 miles per acre.

TABLE 2

Resource Output Targets for the Nezperce Forest - Fiscal Year 1979

| <u>Management System</u> | <u>Unit of Measure ^{3/}</u> | <u>Total Forest Target</u> | <u>Gospel-Hump Apportioned Share 13% of Total</u> |
|---------------------------------|--------------------------------------|----------------------------|---|
| Timber: | | | |
| Sell | MMBF | 104.3 | 13.6 |
| Silvicultural Exams | M Acres | 36.0 | 4.7 |
| Planting | Acres | 5,788 | 752 |
| Site Preparation | Acres | 982 | 128 |
| Thinning | Acres | 1,457 | 189 |
| Sales Preparation | MMBF | 96 | 12.5 |
| Wildlife: | | | |
| Big Game Habitat: | | | |
| Big Game Maintenance | Acre Eq. | 1,500 | 195 |
| Big Game Improvement | Acre Eq. | 3,750 | 488 |
| Non-Big Game Improvement | Acre Eq. | 3,250 | 423 |
| Recreation: | | | |
| Public Campground & Picnic Area | | | |
| (Admin. & Operation) | MRVD | 110 | 14.3 |
| Developed Sites | PAOT | 1,353 | 176 |
| (Admin. & Operation) | | | |
| Dispersed Area | Acres | 2,100,000 | 273,000 |
| (Admin. & Operation) | | | |
| Developed Sites | PAOT | 479 | 62 |
| (Maintenance) | | | |
| Dispersed Area | Acres | 679,500 | 88,300 |
| (Maintenance) | | | |
| Range: | | | |
| Livestock Grazing | AUM's | 37,000 | 4,810 |
| Land & Water: | | | |
| Soil & Water: | | | |
| Inventory | M Acres | 246 | 32 |
| Minerals: | | | |
| Operating Plans: | | | |
| Administrative | No.Plans | 75 | 10 |
| Developed | No.Plans | 156 | 20 |
| Fire Protection: | | | |
| Area Protected | M Acres | 2,352 | 306 |
| Inventories, Analysis, Plans | M Acres | 690 | 90 |
| Fuels Maintenance | M Acres | 20 | 216 |
| Lands: | | | |
| Land Line Location | Miles | 15 | 2 |
| General Purpose: | | | |
| Land Management Planning: | | | |
| Develop Unit Plans | Acres | 247,000 | 32,100 |

^{3/} These units of measure are explained in the Glossary at the beginning of this publication.



MATRIX - ANALYSIS UNIT 21 (Sample)

| | CG21 | CM21 | WS21 | AL21 | CL21 | SL21 | MI21 |
|-----------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
| TSED | .00000 | .02300 | .02300 | .03480 | .09720 | .09720 | 7.02000 |
| CLRSED | .00000 | .02300 | .02300 | .03480 | .09720 | .09720 | 7.02000 |
| TNSEN | .00000 | .02300 | .02300 | .03480 | .09720 | .09720 | 7.02000 |
| TWSED | .00000 | .02300 | .02300 | .03480 | .09720 | .09720 | 7.02000 |
| JUNSED | .00000 | .02300 | .02300 | .03480 | .09720 | .09720 | 7.02000 |
| WATYD | .00000 | 3.33000 | 3.33000 | 3.73000 | 4.27000 | 4.27000 | 4.66000 |
| DESP | 317400.00000 | -25.50000 | -25.50000 | 68.60000 | 68.60000 | 68.60000 | .00000 |
| MARHR | .00000 | .50000 | .50000 | .40000 | .38000 | .49000 | .00000 |
| DISP | .00000 | .01600 | .01600 | .08800 | .01800 | .02200 | .00000 |
| OM | .00000 | .41000 | .61000 | 3.99100 | 3.73200 | 3.73600 | 100.00000 |
| AC19A | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 |
| XTRAL | 2.00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 |
| CG21 | 1.00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 |
| CRSED | .00000 | .02300 | .02300 | .03480 | .09720 | .09720 | 7.02000 |
| PTLHR | .00000 | .20000 | .20000 | .19000 | .15000 | .19000 | .00000 |
| VIND | .00000 | 1.00000 | 1.00000 | .00000 | .00000 | .00000 | .00000 |
| AC21 | .00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| WLDSD | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 | .00000 |
| WS21 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 | .00000 |
| AUMS | .00000 | .00000 | .00000 | .01100 | .01100 | .01100 | .00000 |
| TRF | .00000 | .00000 | .00000 | 149.00000 | 149.00000 | 149.00000 | .00000 |
| RCNST | .00000 | .00000 | .00000 | .00016 | .00039 | .00027 | .00000 |
| XRDS | .00000 | .00000 | .00000 | .00310 | .00780 | .00548 | .00000 |
| RMAIL | .00000 | .00000 | .00000 | .00310 | .00780 | .00548 | .00000 |
| RFV | .00000 | .00000 | .00000 | .31700 | 7.46700 | 2.99700 | .00000 |
| CT | .00000 | .00000 | .00000 | 3.10000 | 7.90000 | 5.40000 | .00000 |
| TL21 | .00000 | .00000 | .00000 | 1.00000 | 1.00000 | 1.00000 | .00000 |
| AL21 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 | .00000 |
| CL21 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 | .00000 |
| OGRD | .00000 | .00000 | .00000 | .00000 | -1.16690 | -1.16640 | .00000 |
| SL21 | .00000 | .00000 | .00000 | .00000 | .00000 | 1.00000 | .00000 |
| MI21 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | 1.00000 |
| CG21 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 | .00000 |

APPENDIX 15

PUBLIC INVOLVEMENT

The Public Involvement Appendix is presented in two parts. The first section provides a brief summary of public involvement that has occurred over the past five years and is very indicative of the wide range of public interest in the area.

The second section is a complete tabulation of the response summary that was referred to in Section IV of the Environmental Impact Statement. With 400 brochures being mailed out, 85 responses were received and analyzed, using a system referred to as CODINVOLVE.* The responses displayed a wide range of concerns. It is recognized that some of the response categories may be difficult to relate to without additional interpretation, but the intent of the display is to provide the reader the subjects of concern to the public. The Core Team received a complete explanation of each category before making their recommendations of alternatives.

* Clark, Roger N., George H. Stankey, and John C. Hendee. An Introduction to CODINVOLVE: A System for Analyzing, Storing and Retrieving Public Input to Resource Decisions. Forest Service Research Note PNW-223, 16 pp., Portland, Oregon.

Public Involvement History - Gospel-Hump

1. Nezperce National Forest M.U. Plan - Part I - 1972

Public review of the Forest M.U. Plan, Part I, was conducted by a group representing major interests active on the Forest. The group included outfitters, timber industry, miners, ranchers, local government, Idaho Fish & Game Department, sportsmen, businessmen, Sierra Club, and others.

Concerning wilderness, only the Sierra Club member favored additional classification of areas.

2. Roadless Area Review & Evaluation (RARE) - 1973

The following roadless areas were displayed in RARE that now comprise the Gospel-Hump Unit: South Fork Face (#240), Upper Johns Creek (#241), Kelly Mtn.-Wind River (242), Sheep Creek-Crooked Creek (237), Crooked River (236), and Upper Ten Mile-Williams Creek (238).

Public involvement was classified by four categories:

1. General agreement for new study area.
2. General agreement against new study area.
3. Divided public opinion.
4. Few or no opinions or information expressed.

Responses were garnered from local meetings. A total of 145 responses were received. Thirty listed the need for more wilderness, two were neutral, and 113 were opposed to additional wilderness. Of the 30 pro-wilderness responses, 11 specified the Seven Devils-Snake Face, three favored the Gospel-Hump, and the remaining 14 wanted all roadless areas.

3. Forest Travel Plan - 1976

Public concerns identified relative to Gospel-Hump included:

1. Would like to see fewer closures, especially in the Gospel-Hump area.
2. The ORV user feels he is participating in a legitimate form of recreation, however, with closure of Seven Devils and restricted access in the Gospel-Hump through Area Closure #5, we have almost eliminated vehicle access to the high country.
3. Four-wheel drives currently go from Moores Station to the Hump on the old wagon road. They would like to continue this use.
4. Written responses were received from 240 people, with the Gospel-Hump being the focal point of concern. The only high country left in North Idaho accessible to the ORV user is the Gospel-Hump.

4. Kelly-Bullion LMP - 1974

Public involvement pointed out that "The planning unit does not contain sufficient roadless areas on its own to be considered under the Wilderness Act, however, roadless areas along the eastern boundary are complementary to the Gospel-Hump Planning Unit which does have wilderness or backcountry potential."

5. Little Slate LMP - 1974

No mention of Gospel-Hump. Input concerning roadless areas in general terms was received from the Sierra Club and Idaho Parks & Recreation Department.

6. Mill Creek LMP - 1976

Large number of responses "expressed or implied that the total 343,000 acre Gospel-Hump contiguous roadless area should receive a formal study for wilderness."

Four respondents indicated that nearby wilderness does not reduce the need for more wilderness. Three respondents felt that Mill Creek was a major part of the total roadless area.

Additional feelings were expressed in opposition to our method of analyzing wilderness values and making trade-offs.

7. RARE II - 1977

Public response opportunities will begin August 1, 1977. Phase I of the involvement will be directed at additions or deletions to the inventoried roadless areas. For purposes of RARE II, the Gospel-Hump Unit includes roadless areas south of the Salmon River and area in the Jersey-Jack Unit.

8. Rainy Day LMP - 1975

The Rainy Day Plan generated much response, both pro and con wilderness, specifically and generally. The contiguity of roadless areas to areas south of the Salmon River was pointed out, and our wilderness analysis procedures were questioned. Particularly, some persons opposed our alleged "piecemeal" approach to the contiguous roadless area.

9. Church Committee - 1977

Two groups, representing Chamber of Commerce interests and environmentalists, respectively, were brought together by Senator Frank Church. Through a series of private meetings, these groups agreed on a common boundary both could support for wilderness classification of the Gospel-Hump area. Senator Church has agreed to propose legislative classification of the area agreed upon.

10. Meadow Creek - In progress

Although not directly related to Gospel-Hump, the large number of responses received provide some indication of public sentiment. Of those expressing an opinion, 421 were definitely opposed to wilderness, 148 favored wilderness, and 902 favored multiple use management (which does not include wilderness to their way of thinking).

11. Slate Creek LMP - 1975

This plan has not been issued as a DEIS. Public involvement was carried out on the proposed alternatives, however, and a good response was received. No summary of the involvement was located, but in reading the individual letters, it was apparent that many persons and groups were concerned about the total Gospel-Hump area. Many persons indicated a need to review Kelly Mtn.-Wind River (RARE #242) with the total contiguous area.

TABLE 1

Category 1 - Origin of Response

| Grangeville | Remaining Idaho Co. | South Idaho | North Idaho | Out of State |
|-------------|------------------------|-------------|-------------|--------------|
| 25 | 18 | 6 | 28 | 8 |

Category 2 - Alternative Preference

| A1 | A2 | B1 | B2 | B3 | B4 | C1 | C2 | D1 | E1 | E2 | F1 | G1 | W1 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 7 | 1 | 6 | 2 | 8 | 0 | 7 | 0 | 6 | 3 | 12 | 13 | 2 | 4 |

Category 3 - General Wilderness Comments

| Need More | Desire No More | Referred to Church Legislation |
|-----------|----------------|--------------------------------|
| 6 | 15 | 9 |

Category 4 - Timber

| Timber and Local Economy | Close Roads After Logging | Logging Systems | Silvicultural System |
|-----------------------------|------------------------------|----------------------------------|-------------------------|
| 8 | 6 | 14 | 1 |
| Need for Quality Mgmt. | Maximize Harvest | Oppose Harvest in Gospel-Hump | |
| 6 | 5 | 1 | |

Category 5 - Off-Road Vehicles

| Limited Use Only | Oppose Use | Leave Open to ORV |
|------------------|------------|-------------------|
| 2 | 0 | 9 |

Category 6 - Mining

| Leave Area Open | Oppose Mining | Information Provided |
|-----------------|---------------|----------------------|
| 4 | 0 | 2 |

Category 7 - Fisheries

| Not Important | Alternatives Don't Protect | Very Important | General Comments |
|---------------|-------------------------------|----------------|------------------|
| 0 | 2 | 3 | 4 |

Category 8 - Wildlife

| Prescribed Fire | Information Inadequate | General Comments |
|-----------------|------------------------|------------------|
| 1 | 1 | 13 |

Category 9 - Sediment

Concerned About Effects of Sediment - 17

Category 10 - Economics

Express General Comments About Economics - 10

Category 11 - Affiliation

| Forest Service | Conservation Organization | ORV | Timber Industry | Mining | Other |
|----------------|------------------------------|-----|--------------------|--------|-------|
| 8 | 5 | 6 | 5 | 1 | 61 |

Category 12 - Wild & Scenic River

Opposed Classification of Salmon River - 3

Category 13 - General

| Brochure Inadequate or Hard to Understand | Oppose Planning | Brochure Good |
|--|-----------------|---------------|
| 12 | 1 | 1 |

In addition, the reasons people favored the various alternatives were summarized and are listed here in short sentence form, along with the numbers of people stating that reason.

- A1 Combined with features of F1 and W1 - 1
Allows logging, protects environment - 1
Most reasonable compromise - 3
- A2 Best compromise - 1
- B1 Corridor provides wilderness entry - 1
Allows timber harvest - 1
Roadless, not wilderness - 1
Need additional area south of river - 1
Extend to C1 south of River - 1
But current management on remaining area - 1
- B2 Best by process of elimination - 1
- B3 Max timber, protects wilderness core - 1
But wants wildlife from W1 - 1
Not wilderness, but roadless - 1
Best for economy - 1
But with sediment limits - 2
- C1 Protects scenic and historic areas - 1
Protects Salmon River corridor - 2
Protects most jobs per amount of wilderness - 1
Good balance - 3
Area south of Salmon important for wilderness - 1
Peripheral area low quality - 1
But with B1 north of Salmon - 1
- D1 Better sediment control - 1
Benefits of roadless outweigh loss of jobs - 1
Plus G1 south of River - 1
Allows some development, but no more on South Fork - 1
Timber important part of ecology - 1
Contains two river systems - 1
- E1 Opposed to past logging damages - 1
Save for future generations - 1
Moose Butte-Dixie doesn't add much - 1

- E2 Values for roadless higher in long term - 1
 - Could also support C1 depending on road management - 1
 - Doesn't like any other alternative - 1
 - No suitable range of alternatives south of river - 1
 - Only protection for resources - 2
 - Best meets rational needs - 1
 - Low timber productivity - 1
 - Retain all available wilderness - 4
 - Best alternative, but should fit legislation - 1
 - Least road cost or sedimentation - 1
 - Best economically - 1

- F1 Total potential yield intact - 2
 - Benefit more people - 1
 - Least bad of the bunch - 1
 - Retain for family type recreation - 1
 - Most timber yield - 1
 - No more wilderness - 3
 - Need all available resources - 1
 - Only acceptable alternative for minerals - 1
 - But primitive as possible - 1

- G1 (Out) - Best, but not good either - 1

- W1 Most acres of current management - 1
 - No more wilderness - 1
 - Logging after wildlife studies - 1
 - Low timber volumes in area - 1

APPENDIX 16

Professional Background of Core & Peripheral Teams

| <u>Name</u> | <u>Degree</u> | <u>Years of Professional Experience</u> |
|------------------|--------------------------------------|---|
| Don Biddison | BS, Forestry | 25 |
| William B. Sendt | BS, Forestry | 25 |
| Ed Laven | BS, Forestry | 21 |
| Earl Kimball | MS, Forestry | 21 |
| Jim Thomson | BS, Forestry | 20 |
| Jim Harvey | BS, Forestry | 21 |
| Bruce Pewitt | BS, Civil Engineering | 17 |
| Frank Sandvig | BS, Business Admin. | 16 |
| Phil Jaquith | BS, Forestry | 19 |
| Ron Stoleson | BS, Forestry | 17 |
| Vic Standa | BS, Forestry | 15 |
| Joe Bednorz | BS, Forestry | 19 |
| John Hooper | BS, Forestry | 20 |
| | | |
| Bill Brookes | MS, Watershed Mgmt. | 4 |
| Dick Cline | Ph.D., Soils | 3 |
| Floyd Gordon | MS, Fish/Wildlife | 3 |
| Charles Nelson | BS, Forestry | 18 |
| Paul LaBrun | BS, Communications/ Polit.Science | 3 |
| Robert Lovegrove | Ph.D., Economics | 9 |
| Greg Alword | MS, Economics | 1 |
| John Hoaglund | MS, Forestry | 1 |
| Don Renton | Ph.D., Range Science | 25 |
| Tim Sale | No degree | 15 |
| Ray Franks | BS, Forestry | 18 |
| Dewey Haeder | BS, Forestry | 15 |
| Rusty Dersch | BS, Geology | 6 |
| Walt Shjeflo | BS, Engineering | 13 |
| Henry Newhouse | AA, Fisheries | 4 |
| Clint McCarthy | BS, Wildlife | 1 |
| Pete Mourtsen | BS, Conservation | 2 |
| Mike Lunn | BS, Forestry | 10 |
| Duane Marti | MS, Archaeology | 1 |
| Valerie Weber | BS, Landscape Arch. | 2 |

APPENDIX 17

Taken from Report on HR 3454, the Endangered American Wilderness Act of 1977.

the Senate.

Section 4.—*Gospel-Hump Area.*¹

Section 4(a) (1) designates by map reference the "Gospel-Hump Wilderness," comprising about 206,000 acres, on the Nezperce National Forest in the State of Idaho. The proposed Gospel-Hump Wilderness will be a component of the National Wilderness Preservation System.

Section 4(a) (2) identifies, also by map reference, three tracts totaling 92,000 acres and denoted as "management areas", which will be managed in accordance with the multipurpose resource development plan defined later in section 4.

Section 4(a) (3) identifies, also by map reference, several tracts totaling 45,000 acres and denoted as "development areas", which shall be available for immediate resource utilization in accordance with existing applicable Forest Service land management plans. The phrase "existing applicable" is intended to make reference to the currently effective land management plans, but is not to be construed as in any way limiting or prejudicing the on-going planning functions of the Forest Service and the changes and or revisions which all such plans normally undergo in conformance with the laws governing the administration and management of the national forests.

Section 4(b) provides for a seven-member Advisory Committee on management of the Gospel-Hump Area.

Section 4(b) (1) requires that the Secretary appoint the Advisory Committee within 90 days after enactment of the Act. The Advisory Committee is to advise the Secretary as to the progress of the fish and game research program, and the multipurpose resource development plan called for elsewhere in this section and shall appraise the results of the research program and the development plan on an ongoing basis.

¹ A more detailed description of the Gospel-Hump area is found at the end of the Section by Section 4(a).

Section 4(b) (2) requires that two of the members of the Advisory Committee be persons from the timber industry who purchase timber from the Nezperce National Forest; that two members be from organizations actively engaged in seeking the preservation of wilderness land; and that three members be from the general public who otherwise have a significant interest in the resources and management of the Gospel-Hump Area.

Section 4(b) (3) provides for allowance of travel expenses, including per diem in lieu of subsistence, for the members of the Advisory Committee while away from their homes or regular places of business in performance of services for the Committee. The allowance for these expenses is to be provided in the same manner as for persons employed intermittently in the Government service as governed by section 5703 (b) of title 5 of the United States Code.

Section 4(b) (4) states that the Secretary shall insure that the Advisory Committee meets as soon as practicable after all the members are appointed, but not later than 150 days after the enactment of the act. Subsequent meetings must be held every 180 days, or as often as the Secretary deems necessary.

Section 4(b) (5) directs that the Advisory Committee shall terminate 150 days after the transmittal of the completed multipurpose resource development plan prepared pursuant to this section.

Section 4(c) provides for the preparation of a comprehensive fish and game research program for the Gospel-Hump Area and surrounding Federal lands in north-central Idaho.

Section 4(c) (1) directs the Secretary to cooperate with agencies and institutions of the State of Idaho and with the Secretary of the Interior in conducting the comprehensive fish and game research program. The committee recognized the need—long expressed by Idaho's Department of Fish and Game—for such a detailed study as a prerequisite to intelligent land allocation and resource management decisions in this overall area. A cooperative program, utilizing expertise and resources of the Department of Agriculture, the Fish and Wildlife Service of the Department of the Interior, the Idaho Department of Fish and Game, and the resource specialists from such institutions as the University of Idaho, will best insure a comprehensive and thoroughly detailed program. The Secretary is directed to insure that this research program includes detailed investigations concerning resident and anadromous fisheries resources (including water quality relationships) and the status, distribution, movements, and management of game populations, in order to provide findings and recommendations concerning integration of land management and development with the protection and enhancement of these fish and game resources.

Section 4(c) (2) authorizes the Secretary, for the purpose of carrying out the research program, to make grants of funds to agencies and institutions of the State of Idaho and to provide the assistance of personnel from agencies under his jurisdiction. The committee intends that personnel from appropriate agencies under the jurisdiction of the Secretary of the Interior will also be made available to assist in this cooperative program.

Section 4(c) (3) directs the Secretary to insure that the research program is completed in a timely fashion so that its findings and recommendations are fully integrated in the preparation of the land management plan.

pose resource development plan required by subsection 4(d). Similarly, the findings of this research program should assist in the preparation of the wilderness management plan required in section 4(e).

Section 4(d) requires the Secretary of Agriculture to develop within 4 years a multipurpose resource development plan laying out the location and manner of developments—such as road construction and logging—within the so-called “management areas” of the Gospel-Hump area. The plan must comply with provisions of relevant laws governing the management of the national forests, including the Multiple Use-Sustained Yield Act, the Forest and Rangeland Renewable Resources Planning Act, and the National Forest Management Act, and the regulations, guidelines, and standards promulgated under each of those acts. It is intended that this plan will require the Forest Service to gather detailed field data on soil types and soil hazards, and information on timber volumes, timber site classes, and productivity. Findings and recommendations coming from the comprehensive fish and game research program as well as other available fish and wildlife data are also to be used in the development of this management plan. It is further intended that this is not to be a static plan, but it is to be revised from time to time to incorporate any new data that might be available.

The preparation of this multipurpose resource development plan is to be done within full view of all interested parties, with open participation by the public sector, and should give careful consideration to the ideas and recommendations of the Advisory Committee.

The plan is to be reviewed each year during its preparation in order to determine what kind of developments might be scheduled in a particular area before the completion of the final plan. Notice of completion of the plan (or portions of the plan) is to be published in the Federal Register, and the plan (or relevant portion) is to be transmitted to both houses of Congress for a 90-day review period. The plan (or portion) can be implemented after this review.

Section 4(e) requires the Secretary to prepare a wilderness management plan for the Gospel-Hump Wilderness, incorporating into the plan findings of the fish and game research program. In preparing the wilderness management plan, the Secretary must consider the possible impacts of allowing over-snow motorized vehicles to use the trail (No. 313) between Square Mountain and Hump Lake which traverses the wilderness. He may then issue an order, if he desires, allowing such use under certain conditions. However, before doing so, he must issue a written finding that resident and migratory wildlife in the area would not be adversely affected by such use, that wilderness values and water quality would not be unduly degraded, that due consideration is given to other, nonmechanized use of the wilderness, and that adequate provision is made for effective control of this over-snow vehicle use. If the Secretary decides to allow this over-snow travel along this one trail, he is required to report to Congress after 2 years on the effects of such travel on the area's wildlife, the wilderness values of the area, local water quality, other nonmechanized uses, and other relevant matters.

Section 4(f) requires the timber resources within both the management and the development areas be included in the calculation of the

annual allowable timber cut for the Nezperce National Forest within 30 days after the bill's enactment, thus acknowledging that the timber resources in those areas are to be harvested eventually.

Section 4(g) is a reiteration of the language of the Wilderness Act relating to mining and mineral location. It is included here to restate the intent of the committee that some mining activities can occur in the Gospel-Hump Wilderness Area. The section also requires a detailed, recurring study of the mineral potential of this area by the Geological Survey and the Bureau of Mines, acknowledging the potential mineralization of the area.

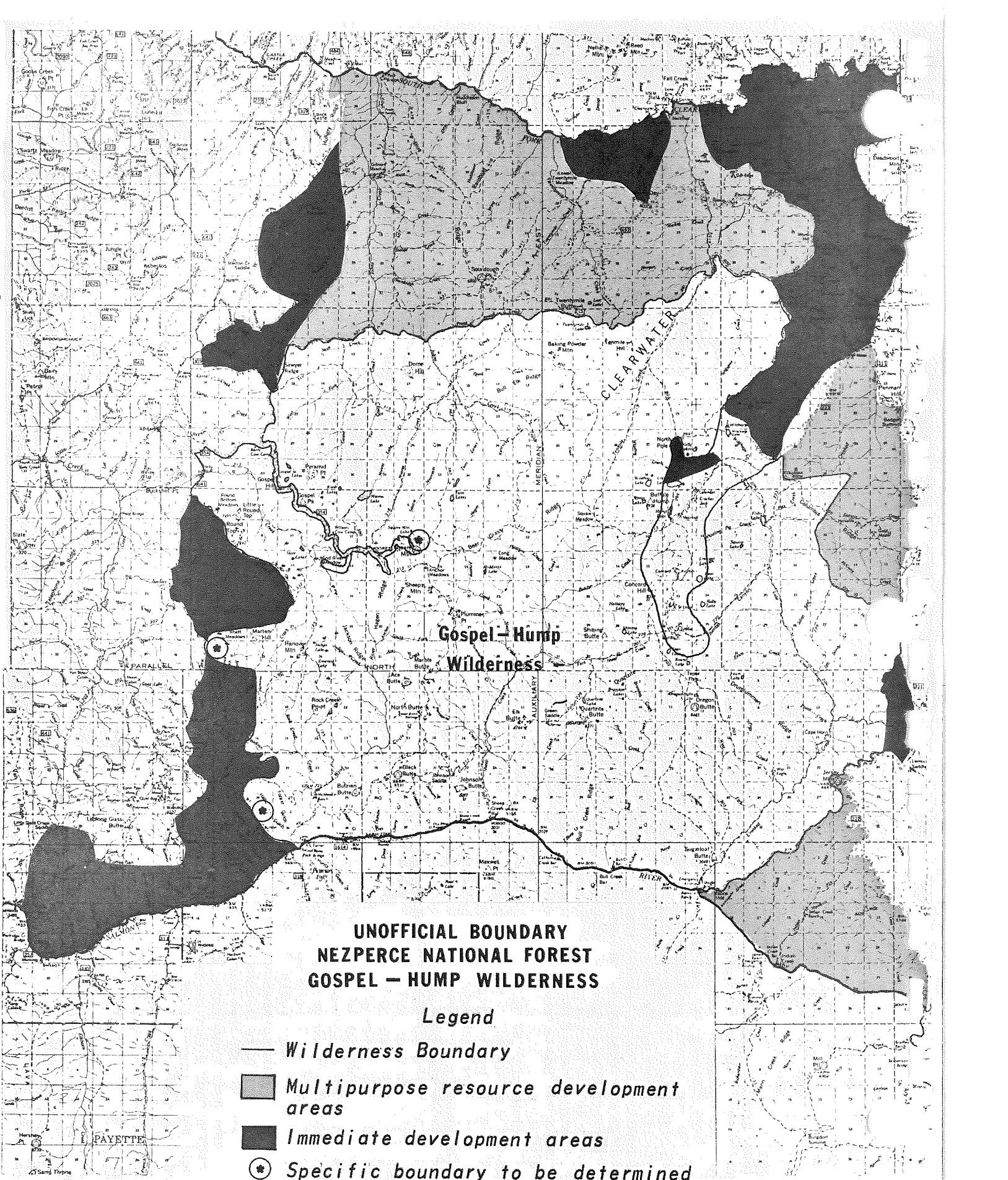
Section 4(h) authorizes appropriations for the fish and game research program, and the multipurpose resource development plan. Although for budgetary reasons the language limits this authorization until after October 1, 1978, the committee fully expects the Departments of the Interior and Agriculture to seek the reprogramming of funds at an earlier time, under their normal reprogramming procedures, so that both these priority programs might begin as rapidly as possible.

Section 5.—Administration of wilderness areas

This section provides that, subject to valid existing rights, wilderness areas designated by this Act are to be managed in accordance with the provisions of the Wilderness Act of 1964. However, in the case of the proposed Gospel-Hump wilderness area, the Committee agreed to extend the deadline for location of mining claims contained in the Wilderness Act for a 5-year period. This provision has the effect of allowing mineral claims to be located within the proposed Gospel-Hump wilderness until December 31, 1988. The amendment also makes January 1, 1989, the date at which the minerals in the Gospel-Hump area would no longer be available for appropriation under the mining laws. The effective date of such withdrawal from appropriations under the terms of the Wilderness Act is January 1, 1984. The committee also agreed to adopt language identical to that contained in Public Law 94-429, the so-called “Mining in the Parks Act”, providing that activities resulting from the exercise of valid existing mineral rights on patented or unpatented mining claims within the proposed Gospel-Hump Wilderness shall be subject to regulations prescribed by the Secretary as he deems necessary for the preservation and management of the area.

Section 6.—Filing of maps and descriptions

This section contains language common to all wilderness legislation requiring the filing of accurate maps and descriptions of wilderness areas in the bill with the House Committee on Interior and Insular Affairs and the Senate Energy and Natural Resources Committee.



APPENDIX 18

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